Apple® II | Apple IIGS™ System Disk
User's Guide

File   Edit   View   Special   Color

SYSTEM.DISK

9 items   671K used   129K available

PRODOS   SYSTEM   SYS.UTILS

APPLETALK

SYSTEM.DISK

DATA.FILES

SYSTEM

11 items   671K used   129K available

START   SYSTEM.SETUP   TOOLS

FONTS   FINDER   LAUNCHER

Trash

Apple® II Apple IIGS™ System
Disk User's Guide


```
  File  Edit  View  Special  Color
┌─────────────────────────────────────────┐        SYSTEM.DISK
│               SYSTEM.DISK                 │
│ 9 items      671K used    129K available  │        ┌───┐
│                                           │        │   │
│   PRODOS      SYSTEM      SYS.UTILS        │        DATA.FILES
│                                           │
│  APPLETALK ┌───────────────SYSTEM──────────────┐
│            │ 11 items    671K used   129K available │
│            │                                        │
│            │   START    SYSTEM.SETUP    TOOLS       │
│            │                                        │
│            │   FONTS      FINDER      LAUNCHER      │
│            └────────────────────────────────────────┘
                                                        Trash
```

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About the System Disk

The *Apple® IIGS™ System Disk* has two types of programs, called *utilities*, that let you copy, delete, move, and otherwise manipulate information stored on a disk. These programs also let you start up applications and switch between them.

One utility, called the *Finder*, is mouse-based, requires at least 512K of random-access memory (RAM), and can be used only with disks formatted for the ProDOS® operating system.

If your system is equipped to use the Finder, you'll see a screen similar to Figure P-1 when you start up the system disk.
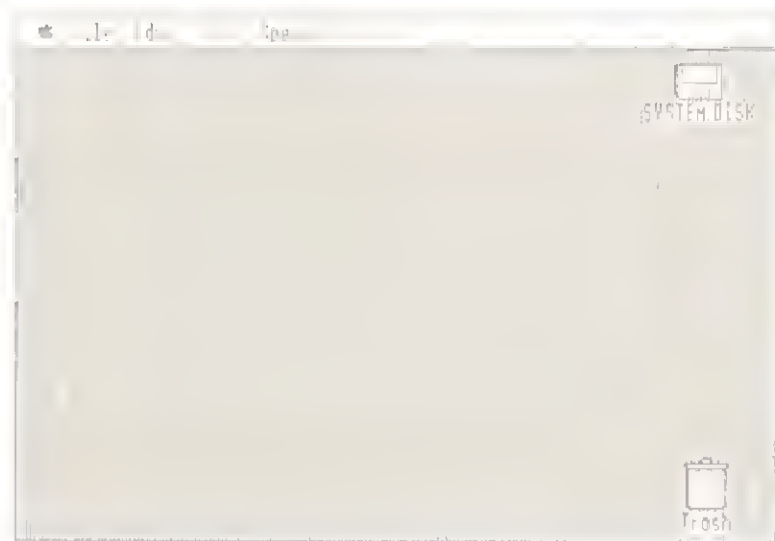
Figure P-1
The Finder

❖ *By the way:* If your Apple IIGS has at least 512K of RAM but
you don't see the Finder when you start up the system disk, it's
probably because you have designated some of the memory on
your memory expansion card to be used as a RAM disk. When
memory is used as a RAM disk, it can't be used by the Finder. See
the *Apple IIGS Owner's Guide* for instructions on reallocating
memory on the memory expansion card.

The other utility on the system disk, called the *System Utilities,* is
keyboard-based, requires only 256K of RAM, and can be used with
disks formatted for the ProDOS, DOS 3.3, or Pascal operating
system. If your system is equipped to use only the System Utilities,
you'll see a screen called the *Program Launcher,* similar to Figure
P-2, when you start up the system disk. You'll start the System
Utilities from the Program Launcher.
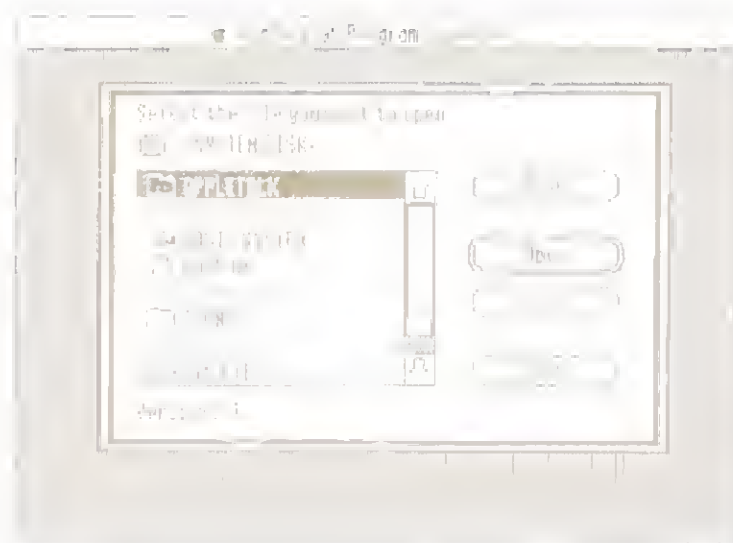
Figure P-2
The Program Launcher

❖ *By the way:* If you have at least 512K of RAM that hasn't been
    assigned to a RAM disk, you can use either the Finder or the
    System Utilities. If you want to work with DOS 3.3 or Pascal disks
    or need to verify that a disk is readable, you must use the System
    Utilities.

To learn more about the Finder, turn to Part 1 of this manual. To
learn more about the System Utilities and the Program Launcher,
turn to Part 2.

If your Apple IIGS is connected to a printer on an AppleTalk®
network, read Appendix A.

If you don't know the meaning of a word (especially a word in **bold**),
look it up in the glossary at the back of this manual.

Part 1

The Finder

How to use this guide to learn the Finder

If you're new to
computers or if you want
an overview of the Finder...   read Chapter 1, which includes a
                                      hands-on introduction to the Finder.

If you want to know how to
accomplish a specific task...   refer to the step-by-step instructions
                                      in Chapters 2 through 5.

If you want to know how a
specific menu command
works...   look in Chapter 6, which describes
                                      each menu command.

If you have a problem...   turn to Chapter 7.

Chapter 1

Trying Out the Finder

This chapter introduces you to the Finder's capabilities and provides a hands-on tutorial in which you can try out the Finder.

Meet the Finder

The Finder is software that does just what its name implies—it finds and starts applications for you so you don't need to restart your computer every time you want to use a different application.

In addition to finding applications, the Finder helps you organize information. With the Finder, you keep track of information in much the same way you did before you had a computer. But instead of using your desk or kitchen table as headquarters for keeping important documents in order, you use the computer screen as your base of operation.

Figure 1-1
Before the Finder

Important | You can use the Finder only with ProDOS disks. If you want to work with Pascal or DOS 3.3 disks, you'll need to use the System Utilities. For more information, see Part 2, "System Utilities."

This section gives a brief description of the ways the Finder can help you stay organized.

Working with disks

When working with disks you can use the Finder to

☐ show you what files are stored on a disk

☐ display the files stored on a disk in several different ways, such as alphabetically by file name or chronologically by the date the file was last modified

☐ prepare a disk to receive information by **initializing** the disk

☐ make a copy of a whole disk

☐ erase all the information on a disk

☐ give a disk a new name

Working with files

A **file** is a collection of information on a disk. When working with files, you can use the Finder to

☐ organize related files by placing them in **folders**

☐ make a copy of one or more files, either on the same disk or on a different disk

☐ give a new name to a file

☐ discard files you no longer need

☐ protect a file from accidental change by **locking** it

☐ remove the protection from a locked file when you no longer need to protect it

Working in color

If you have a color monitor, you can use the Finder's color capability to organize information by color. You use the Color menu to change the color of **icons**, the pictures on the screen that represent the disks, files, and folders you're working with.

If you are writing a novel, for example, you might make incomplete chapters one color and completed chapters another. If you are using your computer for both business and personal purposes, you could use color to distinguish business documents from personal ones. For more information, see "The Color Menu" in Chapter 6.

A hands-on tutorial

This section lets you practice using the Finder. Once you have completed the tutorial, you can turn to subsequent chapters for detailed information about each Finder function.

If you're an experienced computer user, you may want to skip the tutorial and go directly to Chapter 2.

During this tutorial you will learn to

- write protect a disk
- start the Finder
- select and move icons
- choose commands from menus and see what a disk contains
- scroll to change what's visible in a window
- expand a window so that it occupies the entire screen
- view the content of a disk in different ways
- start an application
- initialize a disk so that it can receive information
- make a backup copy of the system disk

❖ *By the way:* This tutorial provides only very brief instructions in using the mouse to click, drag, and choose commands from pull-down menus. If you haven't had any experience with these techniques, you may want to work through the Apple IIGS training disk, *Your Tour of the Apple IIGS*, before you continue. Or you can begin the tutorial now and turn to the training disk if you find that you're having trouble.

You can take a break from this practice session at any time. Leave the Apple IIGS turned on. When you're through with your break, you can simply pick up where you left off.

Write protecting a disk

You can prevent information on a disk from being changed by **write protecting** the disk. To write protect the system disk so that you don't accidentally change its content while working through the tutorial, slide the tab to uncover the square opening in the corner of the disk. (See Figure 1-2.)

WRITE-PROTECTED

NOT WRITE-PROTECTED

Figure 1-2
Write protecting a disk

Starting the Finder

Start the Finder just as you start any other application.

1. **Put the system disk in the startup drive, metal end first and label side up.**

2. **Turn on the monitor.**

3. **Turn on the Apple IIGS.**

   After several seconds, you will see the opening screen of the Finder, and then the Finder **desktop.** Like an actual desk, the desktop is the place where you lay out the documents and folders you want to work with.

   The Finder desktop will look something like Figure 1-3.

SYSTEM.DISK Icon ———

Trash Icon ———
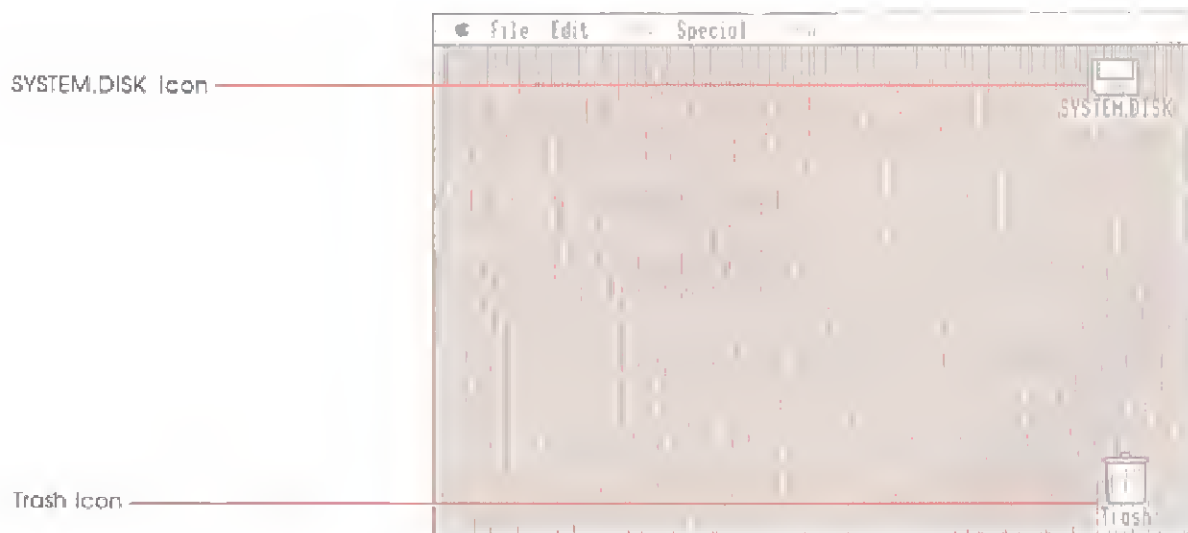
Figure 1-3
The Finder desktop

An icon is a graphic repre-
sentation of a device, a
concept, or a message. You
cannot use spaces in icon
names, so many icon names
(SYSTEM.DISK, for example)
include a period between
words.

You should see at least two **icons** on the desktop: the
SYSTEM.DISK icon, representing the disk you inserted, and
the **Trash** icon, representing the place where you discard items
you no longer need. (Depending on what disks or disk drives
are connected to your computer, you may also see icons
representing devices such as a 5.25-inch disk drive, a RAM
disk, or a hard disk. You can ignore those icons for now.)

Important   If you see a rectangle containing several icons, someone else
has probably used this tutorial and opened the icons into
windows. You can collapse each window back into an icon
by clicking the window's **close box,** the box in the upper-left
corner of the window. For more detailed instructions, see
"Closing a Window" in Chapter 2.

Selecting and moving icons

With the Finder, it's simple to rearrange your electronic desktop by
moving icons. That way, when you're using the Finder on your own,
you can set up your desktop in any way that suits you.

1. **Position the pointer on the Trash icon.**

2. **Click the icon by pressing and releasing the mouse button.
   (See Figure 1-4.)**

Figure 1-4
Selecting the Trash Icon

As you click, the Trash icon is highlighted. The highlighting
shows that the icon is **selected**.

3. Click the SYSTEM.DISK Icon.

When the SYSTEM.DISK icon is selected, the Trash icon is no
longer selected.

**4. Drag the SYSTEM.DISK Icon to change its position on the
desktop.**

Position the pointer on the icon you want to drag.

Press and hold down the mouse button while you move the
mouse. (See Figure 1-5.)

Figure 1-5
Dragging an icon

When you release the mouse button, the icon will snap into its
new position.

5. Practice moving the SYSTEM.DISK Icon and the Trash icon.

You can deselect an icon by clicking anywhere on the desktop
other than on the icon.

Choosing commands and looking in windows

To find out what's stored on a disk, you need to open the icon that
represents that disk.

**1. Move the icons on the desktop back to their original
positions. (See Figure 1-6.)**

This will make it easier for you to follow along with the
illustrations used in the tutorial.

Figure 1-6
The desktop with icons in their original positions

2. Select the SYSTEM.DISK icon by clicking it.

3. Pull down the File menu, but don't choose any menu items.

   Position the pointer on the word *File* in the menu bar.

   Without moving the mouse, press and hold the mouse button to display the File menu. Release the mouse button when you're finished looking at the menu. (See Figure 1-7.)
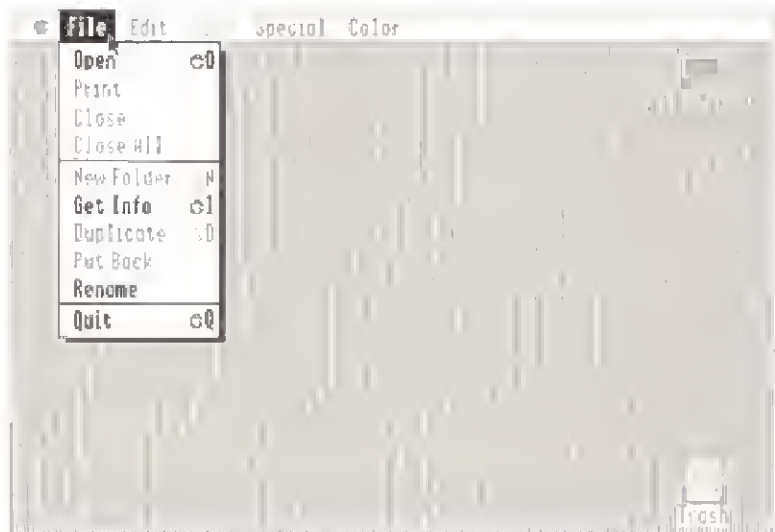
Figure 1-7
Pulling down a menu

Commands that appear in black type are commands you can choose now. Those that are dimmed cannot be chosen now. (Close, for instance, cannot be chosen now.) If you try to choose a dimmed command, you'll see a message telling you what you need to do before the command can be chosen.

In some instances, you can use the keyboard to give a command instead of using the mouse to choose a command from a menu. For example, to give the Open command, you can press the letter *O* while holding down the Apple key. Keyboard alternatives are displayed to the right of options on pull-down menus. For more information, see "Menu Shortcuts" in Chapter 6.

4. Choose Open from the File menu.

Position the pointer on the word *File* in the menu bar.

Press the mouse button and hold it down while you drag the pointer to the word *Open*. Then release the mouse button. (See Figure 1-8.)
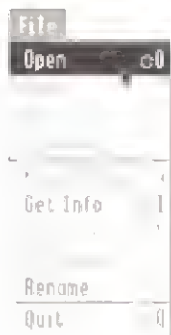
Figure 1-8
Choosing the Open command

A **window** is an area on the
desktop used to display the
directory of a disk or folder. A
directory is a pictorial, alpha-
betical, or chronological list
of the files and folders stored
on a disk. A **folder** is a place
to store related documents.

When you release the mouse button with the Open command
highlighted, you'll see a **window** that contains a **directory** of
icons representing some of the files and **folders** stored on the
system disk. (See Figure 1-9.)

Title bar

Close box

Zoom box

File icon

Folder icon

Size box
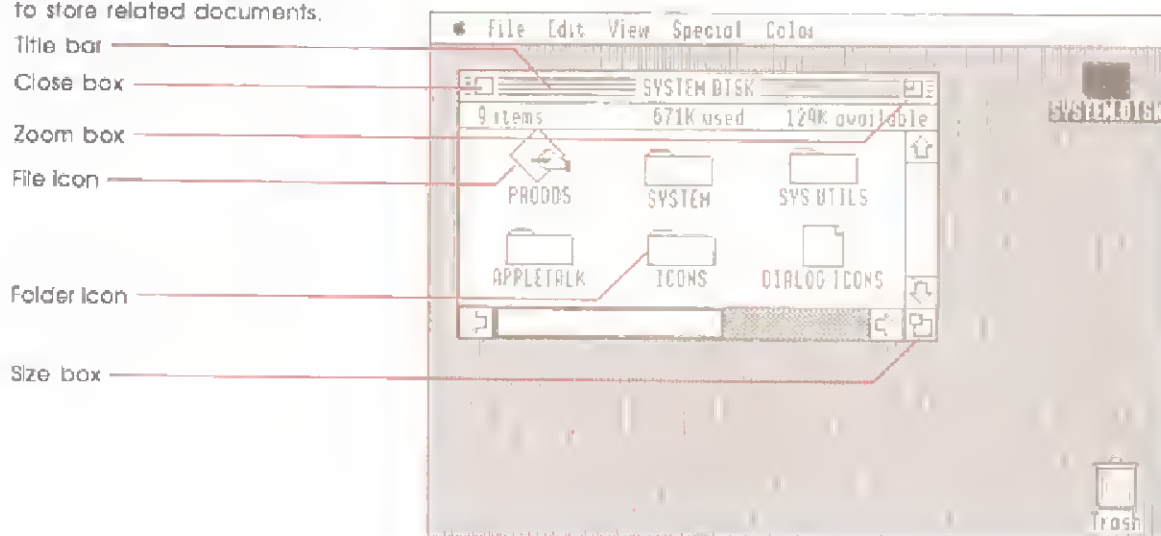
Figure 1-9
The SYSTEM.DISK window

Important   If the window doesn't appear, try again, making sure the
SYSTEM.DISK icon is selected before you choose Open from the
File menu.

The window has several parts, each of which is used to manipu-
late it in a different way. You'll get some practice working
with windows in this tutorial. Complete information about
manipulating windows is included in Chapter 2, "Working
With Windows, Icons, and Text."

Scrolling

The SYSTEM.DISK window isn't large enough to display the complete directory of what's stored on the system disk. You **scroll** to change the portion of the directory that's visible in the window.

The **scroll bars** represent the size of the complete directory. The **proportional scroll box** within each scroll bar represents the proportion of the entire directory that's displayed. (See Figure 1-10.)

A scroll bar is the long bar at the bottom or on the right side of an active window. A **proportional scroll box** is the white rectangle inside the scroll bar.

Scroll bar ──────

Proportional scroll box ──────
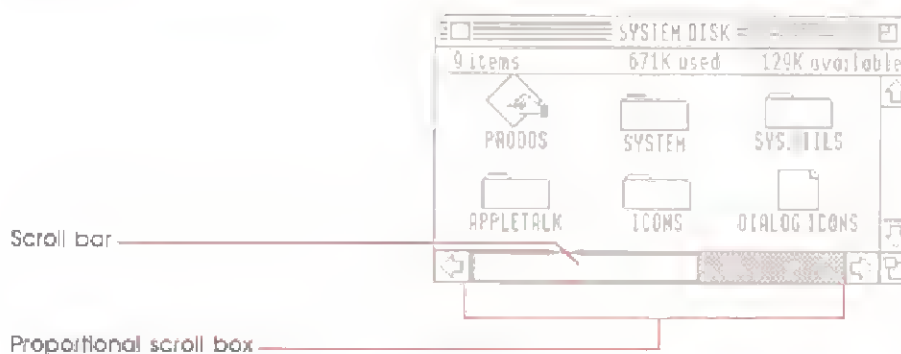
Figure 1-10
Scroll bars and proportional scroll boxes

Notice that the proportional scroll box in the horizontal scroll bar in the SYSTEM.DISK window covers about half the gray portion of the scroll bar. This indicates that about half the width of the directory is visible. The proportional scroll box in the vertical scroll bar completely covers the gray portion of the scroll bar, indicating that the entire length of the directory is in view.

To scroll:

1. **Drag the proportional scroll box in the horizontal scroll bar all the way to the right. (See Figure 1-11.)**
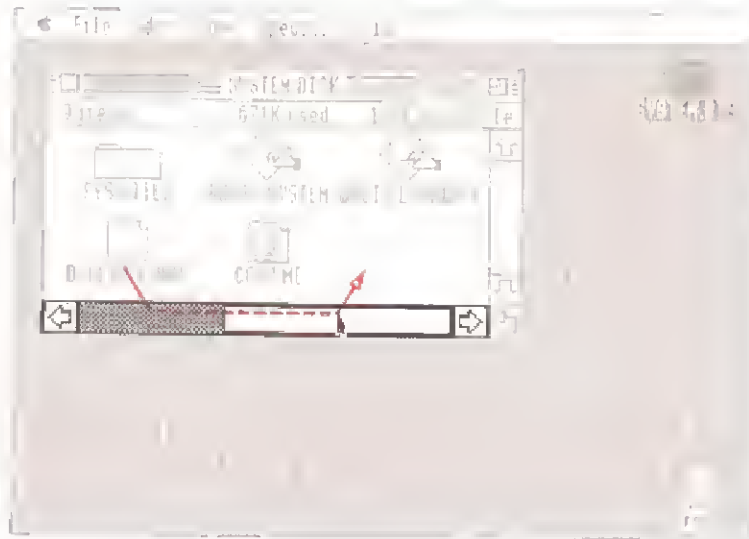
Figure 1-11
Dragging the proportional scroll box

The right half of the directory is displayed.

2. **Drag the proportional scroll box all the way to the left.**

And you're back where you started.

The Finder provides several other ways to scroll. See "Scrolling" in Chapter 2 for details.

Using the zoom box

Another way to increase the view of a directory is to use a window's **zoom box** to expand a window to its full size. The zoom box is the small square in the top-right corner of the window.

1. Position the pointer on the zoom box and click to make the SYSTEM.DISK window occupy the whole screen. (See Figure 1-12.)

Zoom box ───────────────────────

Figure 1-12
Zooming

The window zooms out to fill the screen.

2. Click the zoom box again.

The window returns to its former size and position.

Changing your view

The directory in the SYSTEM.DISK window is arranged by icon. By using the commands in the View menu, you can examine the directory of a disk or folder from several perspectives.

1. With the SYSTEM.DISK window displayed, choose By Name from the View menu.

The contents of the window are arranged alphabetically by name.

See "The View Menu" in Chapter 6 for details about each View option.

2. Choose By Icon from the View menu.

This returns you to the original arrangement of the directory.

Starting an application

To start an **application**, you simply open the icon that represents
it. The system disk, which contains the Finder, also contains an
application called the *System Utilities*. In this section, you'll start
the System Utilities.

Since the System Utilities program is inside a folder called
SYS.UTILS, you need to open that folder before you can start
the application.

1. **Position the pointer on the SYS.UTILS folder icon and quickly
   press and release the mouse button twice. (See Figure 1-13.)**

   This action is called **double-clicking.** If you want to open an
   icon, you can double-click it, or you can select the icon and
   choose Open from the File menu, as you did earlier.

Figure 1-13
Opening a folder

The SYS.UTILS window now appears on top of the SYSTEM.DISK window. (See Figure 1-14.)

Figure 1-14
The SYS.UTILS window

The SYS.UTILS window is now the **active window** because it is the scene of the next action you perform. See "Making a Window Active" in Chapter 2 for more information about active windows.

The icons you see in the SYS.UTILS window represent files that the System Utilities application needs in order to operate.

2. **Open the System Utilities application by double-clicking the SYSUTIL.SYSTEM icon, or by selecting the icon and choosing Open from the File menu.**

After several seconds the Main Menu of the System Utilities appears on the screen. (See Figure 1-15.)
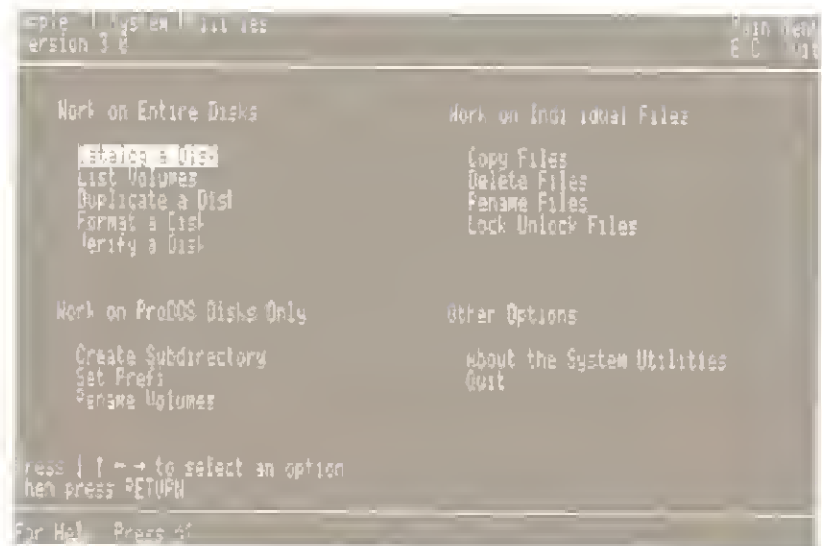
Figure 1-15
The Main Menu of the System Utilities

Although the System Utilities and the Finder operate differently, they perform many of the same tasks, such as copying files, renaming files, and so on. A major difference between them is that the Finder can be used only with **ProDOS** disks, whereas the System Utilities can also be used with **Pascal** and **DOS 3.3** disks.

3. Press the Down Arrow key until the Quit option is highlighted. Then press the Return key.

4. When you see a message asking whether you want to quit the Utilities, press Return.

After several seconds, the Finder desktop appears on the screen, just as you left it.

ProDOS, Pascal, and DOS 3.3 are **operating systems** used by applications that run on the Apple IIGS. (An operating system is a program that controls the way information travels between memory and disk.) For more information on operating systems used with computers in the Apple II family, see the *Apple IIGS Owner's Guide*.

5. Close the SYS.UTILS window by clicking its close box. (See Figure 1-16.)

The close box is the small square in the top-left corner of the window.
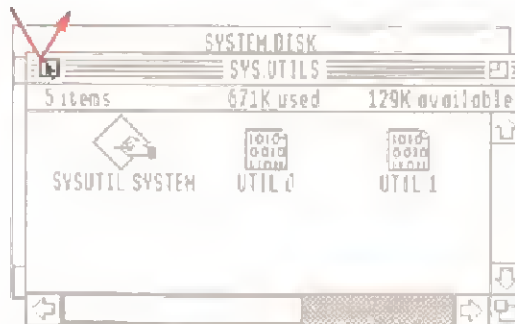
Figure 1-16
Closing a window

6. Close the SYSTEM.DISK window by clicking its close box.

Initializing a disk

Your final task is to make a duplicate copy of the original system disk. But before you can copy information onto a new disk, or onto a disk that has been used with an operating system other than ProDOS, you must **initialize** it.

When you initialize a disk, you divide it into sections where information can be stored.

1. Place the disk that will contain the copy of the system disk in an empty 3.5-inch drive.

If you have only one 3.5-inch drive, eject the system disk by selecting the SYSTEM.DISK icon and choosing Eject from the File menu. (Notice that the disk icon remains on the desktop after the disk has been ejected.) Then insert the disk that will contain the copy.

□ If you've never used the disk before, you'll see the message shown in Figure 1-17.

This disk is unreadable. Do you want to initialize it as a ProDOS disk?

[Eject]   [Initialize]

Figure 1-17
Initializing a new disk

Click Initialize.

□ If the disk has been initialized already, but for an operating system other than ProDOS, you'll see the message shown in Figure 1-18.

This disk was initialized for another operating system and can't be read by ProDOS. Do you want to initialize it as a ProDOS disk?
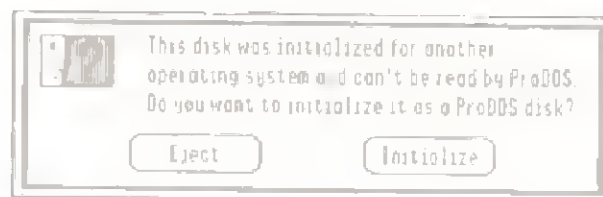
[Eject]   [Initialize]

Figure 1-18
Initializing a disk that has been initialized for another operating system

If you don't want to erase what's already on the disk, click Eject. Then insert another disk. If you want to erase what's on the disk and initialize it as a ProDOS disk, click Initialize.

□ If you don't see either of these messages, your disk has already been initialized and you can go on to the next section, "Making a Backup." If you want to give the disk a different name, see "Renaming Icons" in Chapter 2.

2. When you see a message asking you to name the disk, type a name for the disk, such as SYSTEM.BACKUP, and click OK or press Return.

You need not press the Shift key while typing the name; the letters will appear as uppercase letters automatically.

The name you choose must have no more than 15 characters and must begin with a letter. Subsequent characters may be letters, numbers, or periods. If you type any other character, it won't be displayed.

Making a backup

Now that you have an initialized disk on hand, you're ready to make a **backup copy** of the system disk.

Before you begin, make sure the icon representing the system disk and the icon representing the disk that will be your backup copy are both visible on the desktop. (To place a 3.5-inch disk icon on the desktop, simply insert the disk in a disk drive.)

A backup disk is a duplicate of a disk. Making a backup copy of a disk is like making a photocopy of a paper document. Use your backup copy and put the original away for safekeeping.

1. To perform the copying procedure, drag the SYSTEM.DISK icon on top of the icon of the disk that will be the backup.

When you drag the SYSTEM.DISK icon on top of the backup disk icon, don't release the mouse button until the backup disk icon is highlighted. (See Figure 1-19.)
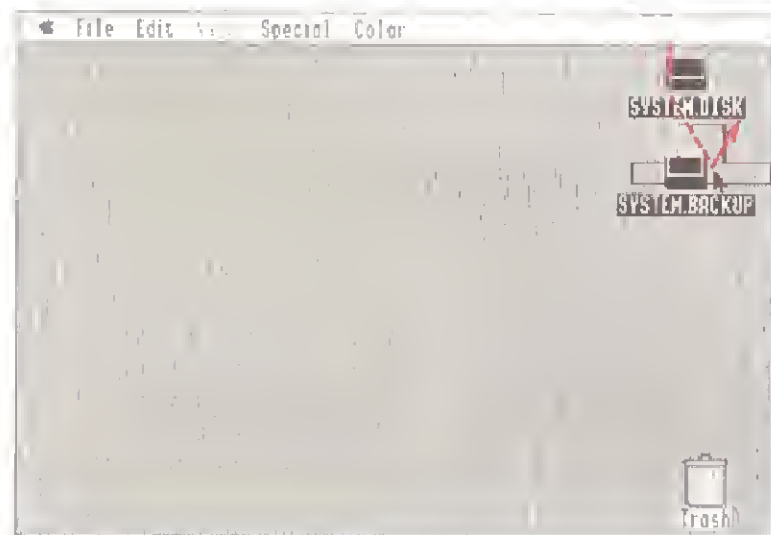
Figure 1-19
Copying a disk

A **dialog box** is a box containing information and, in some cases, requesting a response from you.

A **block** is a unit of measure used to specify the size of disks and files. One block equals approximately 512 characters. A 5.25-inch disk contains 280 blocks. A 3.5-inch disk contains 1600 blocks.

2. **When you see the dialog box asking you to confirm that you want to replace everything on the newly initialized disk, click OK.**

   Pressing Return has the same effect as clicking the button with a double line around it in a **dialog box**; in this case, pressing Return has the same effect as clicking OK.

   As the copying proceeds, you'll see messages indicating how many **blocks** are left to copy.

   If you're using only one drive, the Finder periodically will display messages telling you the name of the disk to insert. When a message appears, eject the disk currently in the drive by pressing the eject button on the front of the drive. (You won't be able to eject the disk using the Eject command because this command is deactivated during the copying procedure.) Then insert the disk named in the dialog box and click OK.

   If you see a message telling you that the Finder can't complete the copying procedure, turn to Chapter 7, "Troubleshooting," for tips on remedying the problem.

❖ *By the way:* The procedure you have just used to copy a disk is the same one you will use to copy any item from one place to another: simply drag the icon that represents whatever you want to copy—file, folder, or disk—on top of the icon that represents the folder or disk that will contain the copy.

Moving on

You've completed a detailed hands-on introduction to the Finder. Now you're ready to organize your own desktop or to start an application. If you want to learn about a specific task, turn to Chapters 2 through 5. If you want to know how a particular menu command works, look it up in Chapter 6.

❖ *By the way:* The Preferences command in the Special menu lets you control a number of Finder options to suit your needs. For information about the Preferences command, see "The Special Menu" in Chapter 6.

Chapter 2

Working With Windows, Icons, and Text

This chapter describes general procedures for using the Finder. Many of these procedures can also be used with other mouse-based applications.

This chapter explains how to

☐ manipulate windows so that you can set up your desktop to suit your needs

☐ select one or more icons, to indicate where your next action will take place

☐ type and edit text so that you can provide information when prompted by the Finder

☐ rename icons so that you can give new names to files, folders, and disks

Manipulating windows

A **window** is an area on the screen used to display the directory of a disk or folder.

When using the Finder, you look at the content of disks and folders through **windows.** (See Figure 2-1.) By placing a number of windows on the desktop, you can view the content of several disks or folders simultaneously.

The windows you use with the Finder have these features:

☐ a title bar

☐ scroll bars

☐ scroll arrows

☐ proportional scroll boxes

☐ a size box

☐ a zoom box

☐ a close box

These features are explained in the following sections of this chapter.

Title bar

Close box

Zoom box

Scroll bar

Size box

Scroll arrow
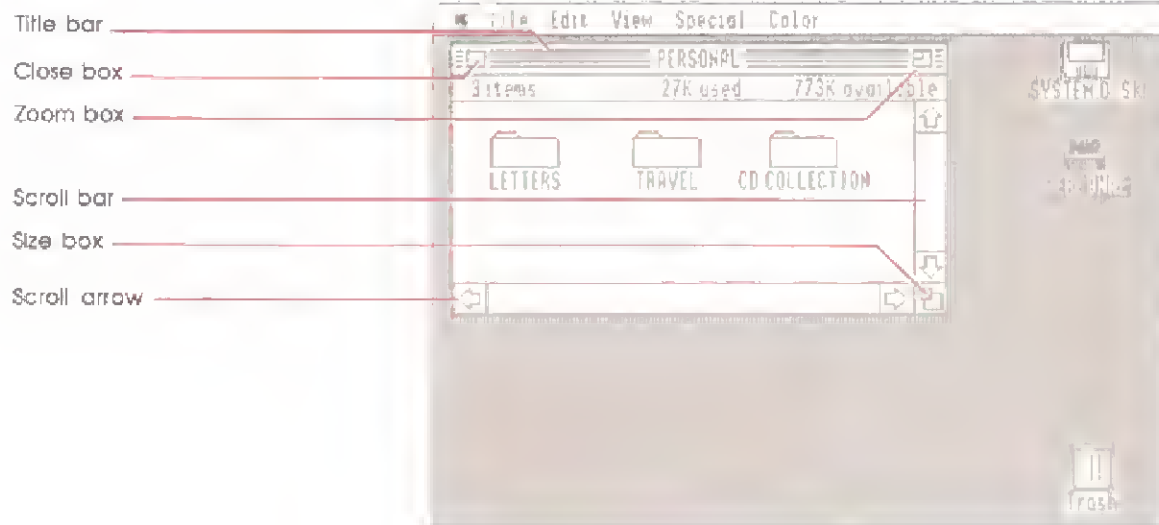
Figure 2-1
A window on the Finder desktop

Making a window active

Although you can have more than one window on the desktop, only one window can be **active.** (See Figure 2-2.) The active window is the scene of the next action you perform and has these characteristics:

☐ It appears in front of all other windows on the desktop.

☐ Its title bar is highlighted with narrow horizontal lines on either side of the title.

To make a window active, click anywhere in the window.

Activating a window brings it to the frontmost position on the desktop, where it may overlap or completely cover other windows. To make a covered window visible so that you can activate it, move the active window or make it smaller.

Inactive window
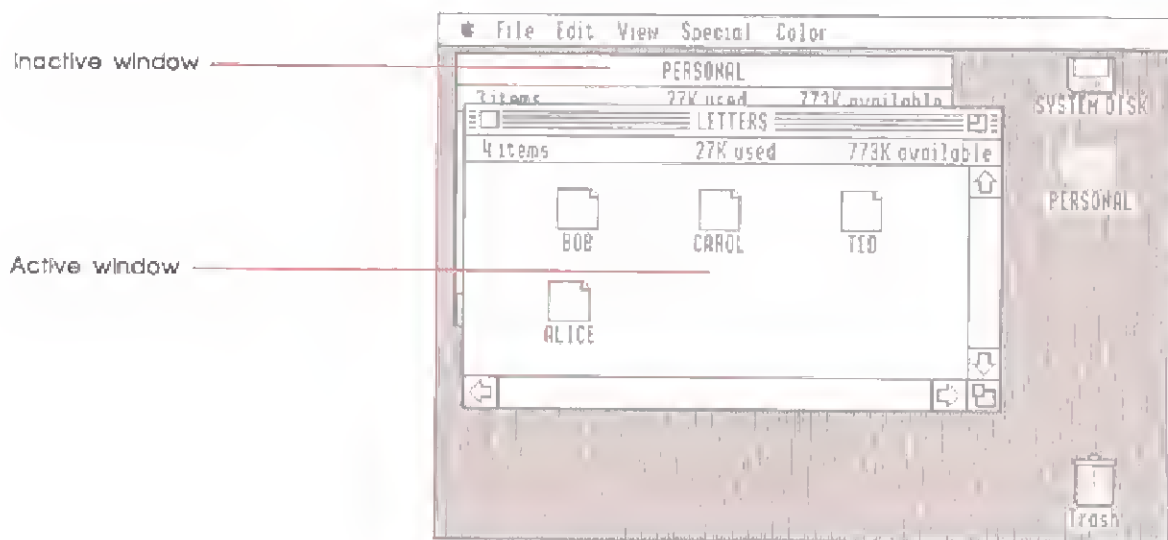
Active window

Figure 2-2
An active window and an inactive window

Moving a window

To move a window:

1. Position the pointer anywhere on the title bar of the window except on the close box or on the zoom box.

2. Drag the window to a new location. (See Figure 2-3.)
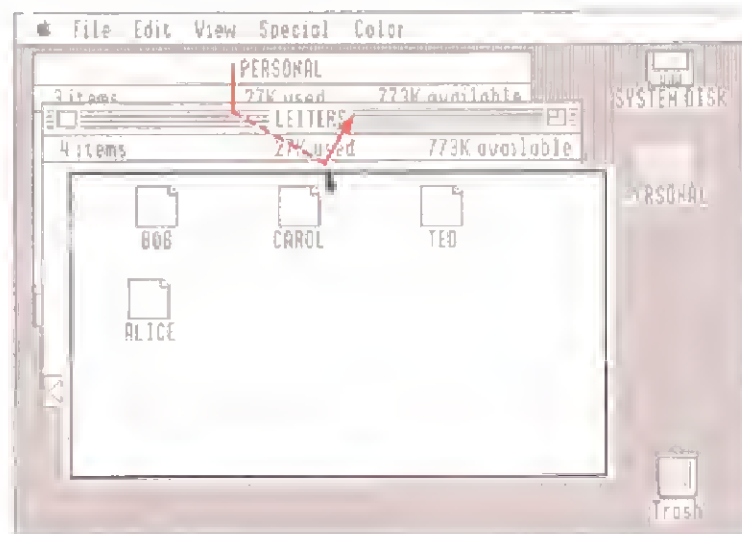
Figure 2-3
Moving a window

The window you are moving becomes the active window, if it wasn't already.

To cancel the move, drag the pointer into the menu bar.

❖ *By the way:* To move an inactive window without activating it, hold down the Apple key while you drag the window by its title bar.

Changing the size of a window

To reduce or enlarge a window:

1. If the window isn't active, activate it by clicking anywhere inside it.

2. If necessary, move the window until the size box in the bottom-right corner is visible.

3. Drag the size box. (See Figure 2-4.)
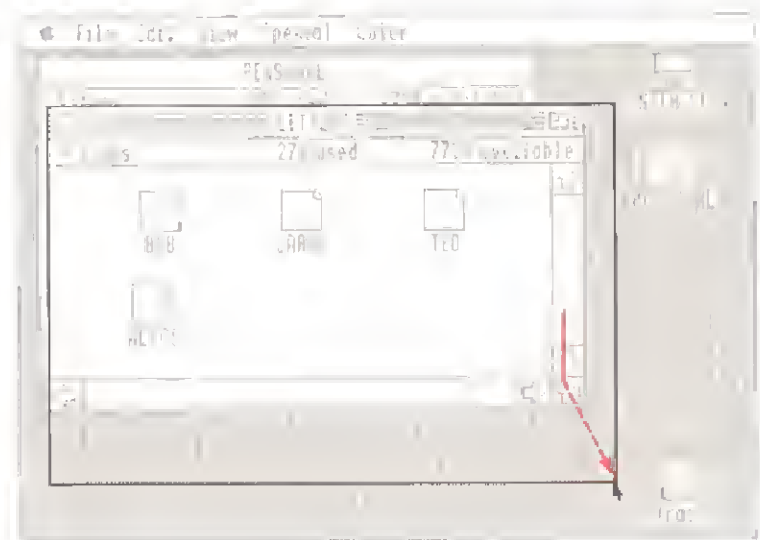
Figure 2-4
Changing the size of a window

Dragging horizontally changes the window's width, dragging vertically changes its height, and dragging diagonally changes both. The new dimensions take effect when you release the mouse button.

❖ *By the way:* Clicking a window's zoom box expands the window so that it occupies the whole screen. Clicking the zoom box of a fully expanded window shrinks the window back to its original size.

Closing a window

To close a window:

1. If the window isn't active, activate it by clicking anywhere inside it.

2. Choose Close from the File menu or click the window's close
   box. (See Figure 2-5.)

PERSONAL

LETTERS

4 items   27K used   773K available

BOB   CAROL   TED

ALICE
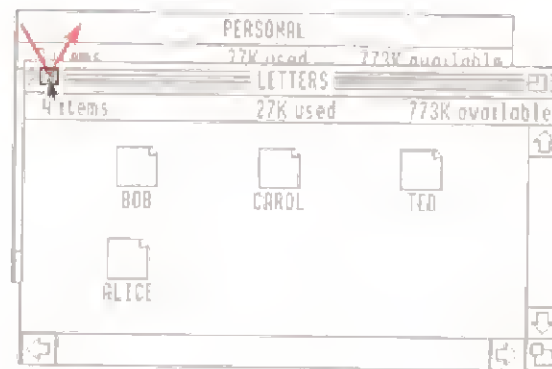
Figure 2-5
Closing a window

Scrolling

You **scroll** to change the portion of a directory that's visible in a
window.

The **scroll bars** represent the size of the complete directory. The
proportional scroll boxes show how much of the directory is
visible in the window. (See Figure 2-6.)

PERSONAL

4 items   92K used   708K available

LETTERS   TRAVEL   CD.COLLECTION

Scroll bar

Proportional scroll box

Figure 2-6
Scroll bars and proportional scroll boxes
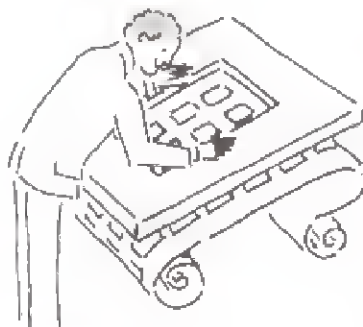
Figure 2-7
Scrolling

The proportional scroll box in the horizontal scroll bar shows how much of the width of the directory is displayed.

The proportional scroll box in the vertical scroll bar shows how much of the length of the directory is displayed.

When the proportional scroll boxes completely cover the gray portions of the scroll bars, the entire directory is visible in the window.

Scrolling a line at a time

To scroll slowly, a line at a time, click the scroll arrow that points in the direction of what you want to see. (See Figure 2-8.)
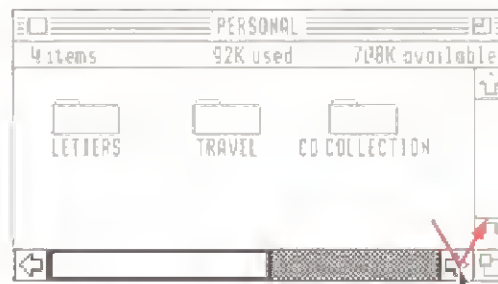
Figure 2-8
Scrolling a line at a time

You can scroll continuously line by line if you position the pointer on the scroll arrow and hold down the mouse button.

Scrolling by the windowful

To scroll one windowful of information at a time, click the gray area of the scroll bar. (See Figure 2-9.)
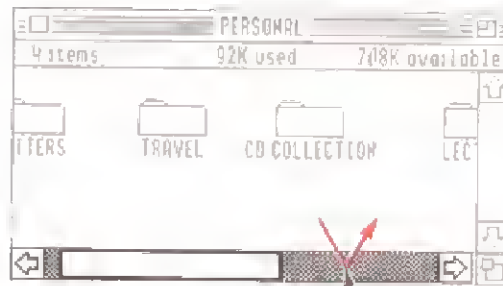
Figure 2-9
Scrolling by the windowful

You can scroll continuously by the windowful if you position the pointer in the gray area of the scroll bar and hold down the mouse button.

Scrolling quickly

To scroll quickly to any part of a directory, drag the proportional scroll box to the point in the scroll bar that represents the approximate position of what you want to see.

If the right side of a directory is displayed in a window and you want to display the left side of the directory, for example, drag the horizontal proportional scroll box to the left side of the scroll bar. (See Figure 2-10.)
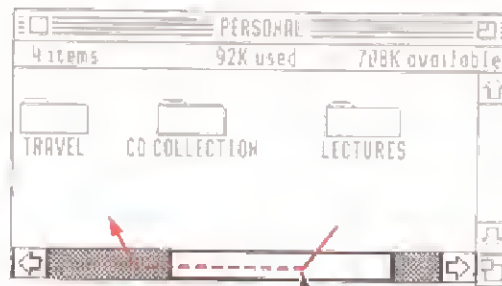
Figure 2-10
Scrolling quickly

Selecting icons

An **icon** is a graphic representation of an object, concept, or message. You **select** something to designate where the next action will take place.

Before you can move, copy, rename, or remove an **icon,** you must **select** it. (See Figure 2-11.)
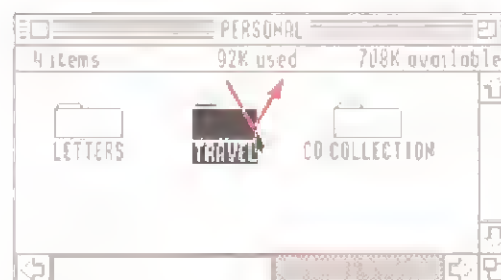
Figure 2-11
Selecting an icon

❖ *By the way:* Before you can select a 5.25-inch disk icon, you must open the icon of the 5.25-inch disk drive that contains the disk. When you open the disk drive icon, the 5.25-inch disk icon is displayed on the desktop. See "Opening a Disk Icon or a Disk Drive Icon" in Chapter 3 for more information.

Selecting one icon

To select one icon, click anywhere on the icon. Clicking the icon's name also selects the icon.

Selecting more than one icon

It's often useful to select two or more icons in order to move, copy, or remove them as a group.

There are two techniques for selecting more than one icon—one for icons that are grouped together in a window or on the desktop, and one for icons that are not.

To select icons that are grouped together:

1. Position the pointer outside one corner of a group of icons.

2. Drag to the opposite corner. (See Figure 2-12.)
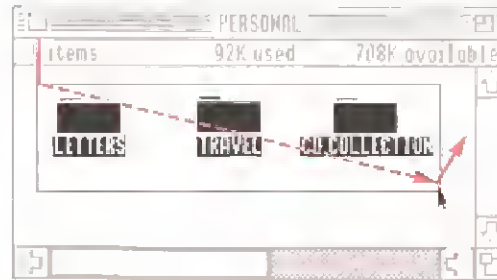
Figure 2-12
Selecting multiple icons grouped together

To select icons that aren't grouped together:

1. Select one icon by clicking it.

2. **Shift-click** to select each additional icon.

To **Shift-click**, hold down the
Shift key while you click the
icon you want to select.

Deselecting icons

To deselect an icon that is selected, Shift-click the icon. To deselect
all selected icons, click any location on the desktop other than one
of the selected icons.

A few pointers

Here are a few hints for selecting more than one icon:

□ You can Shift-click the icon or the icon name to select more than
one item in directories that are arranged by text. (For more
information about viewing directories arranged by text, see "The
View Menu" in Chapter 6.)

□ A quick way to select all icons in the active window is to choose
Select All from the Special menu.

□ You can select more than one icon only when all the icons are in the same window or when they are all on the desktop.

Selecting and editing text

When using the Finder, you will need to edit text or type new text whenever you rename an icon or specify the name of a disk, folder, or file in a **dialog box.**

Inserting text

To insert text:

1. Click where you want to insert text.

   The blinking vertical bar marks where the text you type will be inserted. (See Figure 2-13.)

Figure 2-13
Inserting text

   To reposition the blinking vertical bar, use the Left Arrow key or the Right Arrow key, or click at the new location.

2. Type to add text.

Selecting text

To select text, position the pointer at the beginning or end of the text you want to select, then drag across it. (See Figure 2-14.)

Figure 2-14
Selecting text

The text will be highlighted when it is selected.

To select a complete word, **double-click** it: position the pointer on the word you want to select; then press and release the mouse button twice in quick succession without moving the mouse.

Deleting text

To delete text:

1. Select the text you want to delete.

2. Press the Delete key or type Control-X.

❖ *By the way:* The Control key is located on the left side of the keyboard. When you are asked to press two keys whose names are joined by a hyphen, hold down the first key, then press the second key.

You also can delete text using the following techniques:

❑ To delete the complete line of text, press Control-X when no text is selected.

□ To delete the character to the left of the blinking vertical bar, click to position the vertical bar; then press Delete.

□ To delete the character to the right of the blinking vertical bar, click to position the blinking vertical bar; then press Control-F.

□ To delete all text to the right of the blinking vertical bar, click to position the vertical bar; then press Control-Y.

Replacing text

To replace text:

1. Select the text you want to replace.

2. Type the new text.

Renaming icons

You can give a new name to a file, folder, or disk whenever its icon is visible in a window or on the desktop. You cannot, however, rename a file or folder that is locked or a disk that is write protected.
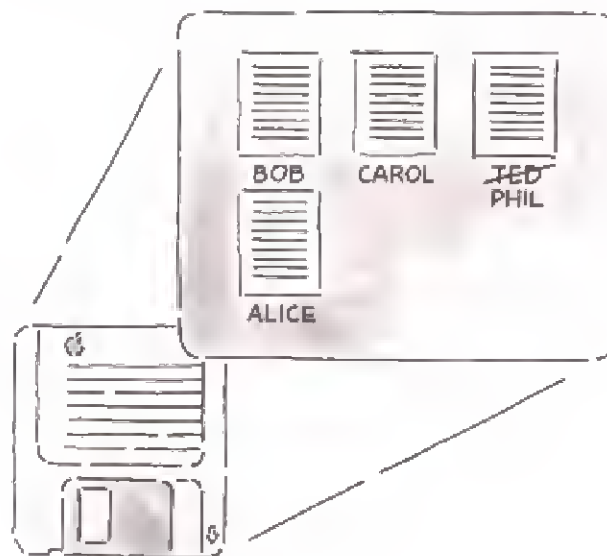
Figure 2-15
Renaming an icon

To rename an icon:

1. Select the icon that represents what you want to rename and choose Rename from the File menu. Or double-click the icon's name. You can rename items that are viewed by text or by icon. See "The View Menu" in Chapter 6 for a description of the viewing options.

2. When a box appears around the icon's name, type the new name or edit the name that's there. Then press Return. To cancel the renaming operation, press the Esc (Escape) key or click anywhere outside the box.

Use names that will help you identify what you're naming.

When you rename an icon, keep the following rules in mind:

☐ Names can have no more than 15 characters.

☐ The first character must be a letter.

☐ Subsequent characters may be letters, numbers, or periods. If you type any other character, it won't be displayed.

☐ The icon's **pathname** cannot exceed 64 characters.

☐ No two icons in the same folder or **disk directory** can have the same name.

☐ No two disks on the desktop can have the same name.

A **pathname** is the complete name of a file. It includes the name of the disk a file is stored on, followed by the name of any folder (or of any folders within folders) the file is stored in, followed by the file's name. For more information about pathnames, see "Using Folders" in Chapter 4.

A **disk directory** is a list of the files and folders on a disk. The disk directory does not include the names of files or folders that have been nested inside other folders.

Chapter 3

Working With Disks

When you are working with whole disks, you can use the Finder to

☐ open a disk icon so that you can see what the disk contains

☐ initialize a disk so that it can receive information

☐ make a copy of all the information on a disk

☐ erase all the information on a disk

☐ eject a disk from its disk drive

Opening a disk icon or a disk drive icon

You open a disk icon to display a window that contains a directory of the disk's content.
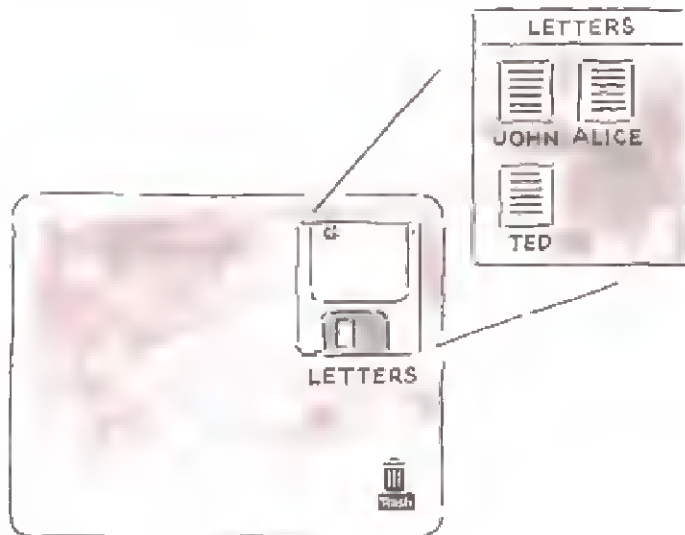
Figure 3-1
Opening a disk icon

To open a disk icon, double-click the icon, or select the icon and choose Open from the File menu.

You can use the Finder to examine the content of any ProDOS disk, mg 3-1including a 5.25-inch disk, a 3.5-inch disk, a **RAM disk,** and a hard disk. (If you have a memory expansion card connected to your Apple IIGS, you can designate a portion of the memory on the card to be used as a RAM disk, a temporary storage area for applications and data. See the *Apple IIGS Owner's Guide* for details.) Figure 3-2 shows the icons used to represent each of these disks.

3.5-inch disk icon ────────────

Hard disk icon ────────────

RAM disk icon ────────────

5.25-inch disk drive icon ────────────
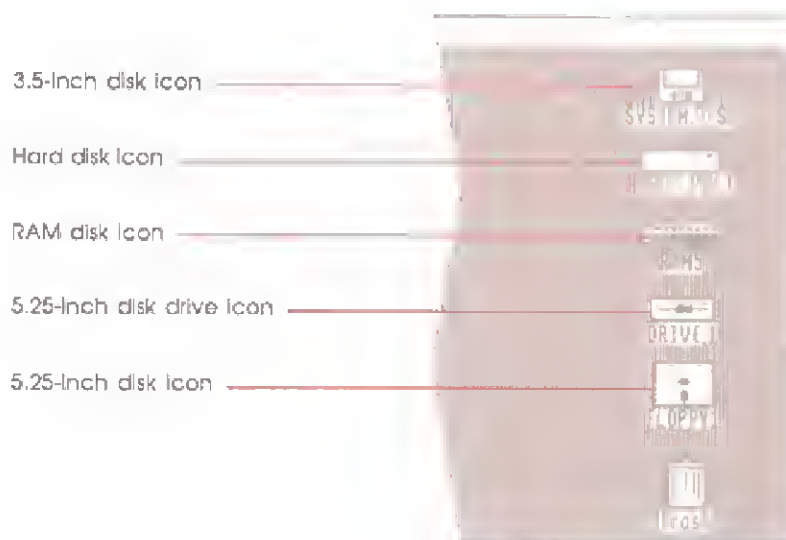
5.25-inch disk icon ────────────

Figure 3-2
Disk icons

Notice that Figure 3-2 shows a 5.25-inch disk drive icon. If you have a 5.25-inch disk drive connected to your Apple IIGS, the Finder displays the drive icon even if there is no disk in the drive.

To examine the directory of a 5.25-inch disk, you must first open the disk drive icon that represents the drive containing the disk. Double-click the drive icon, or select it and choose Open from the File menu. The 5.25-inch disk icon is then displayed, and you can open it in the usual fashion.

❖ *By the way:* If you are using a disk or a 5.25-inch disk drive whose icon is not displayed on the desktop, check to make sure that the disk drive is connected to your Apple IIGS and that the disk is properly positioned in the drive. If the icon still isn't displayed, use the Control Panel to activate the slot associated with the drive that contains the disk; then restart your computer. See the *Apple IIGS Owner's Guide* for instructions on using the Control Panel.

Initializing disks

Before you can save information on a disk, the disk must be **initialized** or **formatted.** (These terms are used interchangeably.)

Initializing a disk divides it into numbered "parking spaces" where information can be stored and retrieved. Initializing also sets up a **directory**—a table of contents of sorts—that contains key information about the content of the disk. Each of the operating systems available on the Apple IIGS—ProDOS, DOS 3.3, and Pascal—creates a different kind of directory. That's why, for example, you can't store a DOS 3.3–based application on a disk formatted for ProDOS.

There are two occasions when you will use the Finder to initialize a disk:

❏ when a disk has never been used before and you want to use it with a ProDOS-based application

❏ when you have initialized a disk so it can be used with a Pascal- or DOS 3.3–based application and you now want to erase what's on the disk and use it with a ProDOS-based application
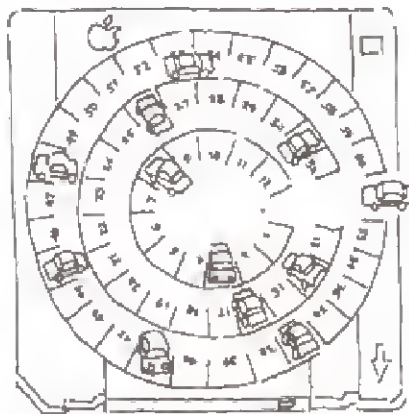
Figure 3-3
Initializing a disk

Important   You can use the Finder to initialize disks in the ProDOS format only. If you want to initialize disks in the Pascal format. you'll need to use the System Utilities described in Part 2 of this manual. To start the System Utilities, open the SYSUTIL.SYSTEM file in the SYS.UTILS folder on the system disk.

❖ *By the way:* Before you begin using an application, check in the owner's manual for the program to find out whether the application initializes disks. If it doesn't, use the Finder to initialize several disks before using the application. (You'll lose the document stored in the computer's memory if you don't have an initialized disk on hand when you're ready to save your work.)

To initialize a disk:

1. Insert the disk you want to initialize in a disk drive. If it is a 5.25-inch disk, open the 5.25-inch disk drive icon.

    ☐ If the disk has never been initialized, you'll see the message in Figure 3-4.

Figure 3-4
Initializing a new disk

Click initialize unless you will be using the disk with an application that doesn't use ProDOS.

☐ If the disk has already been initialized, but as a DOS 3.3, Pascal, or Macintosh™ disk, you'll see the message in Figure 3-5.
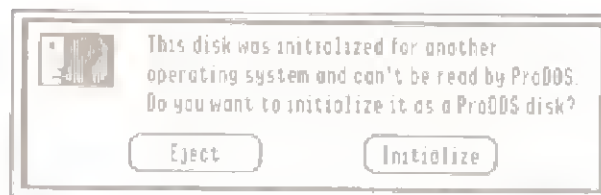
Figure 3-5
Initializing a disk that has been initialized for another operating system

If you don't want to erase what's already on the disk, click Eject. If you want to erase what's on the disk and initialize it as a ProDOS disk, click Initialize.

❖ *By the way:* You can use the Catalog a Disk option in the System Utilities to identify the content of a DOS 3.3 disk or of a Pascal disk. For information on this option, see "Cataloging a Disk" in Chapter 11.

2. Before the Finder initializes the disk, you'll be asked to name it. Type a name and click OK.

See "Renaming Icons" in Chapter 2 for guidelines on naming disks.

Copying disks

Making **backup copies** of disks is the best way to protect your work.

When you make a backup copy, you copy the information on the **source** disk—the disk you're making a copy of—to the **destination** disk—the disk that will contain the new copy.

The Finder gives you several options when copying disks. The **default** option differs depending on whether you're copying disks of the same size or disks of different sizes. If you copy a 3.5-inch disk onto another 3.5-inch disk, for example, you are copying disks of the same size. If you copy a 5.25-inch disk onto a hard disk, you are copying disks of different sizes. A disk's size is measured in **blocks.**

This section describes each of the Finder's disk-copying options.

□ "Copying Disks of the Same Size" describes the default option used by the Finder when copying disks of the same size.

□ "Copying Disks of Different Sizes" describes the default option used by the Finder when copying disks of different sizes.

□ "Other Copying Options" describes copying options in addition to the default options.

Figure 3-6
The benefit of backing up

The **default** option is the option that the Finder uses unless you give it other instructions.

A **block** is a unit of measure used to specify the size of disks and files. One block equals approximately 512 characters. A 5.25-inch disk contains 280 blocks. A 3.5-inch disk contains 1600 blocks.

Copying disks of the same size

When you're copying disks of the same size, the default option is to replace the content of the destination disk with the content of the source disk.

❖ *By the way:* The Finder doesn't allow you to have two disks with the same name on the desktop at the same time. Consequently, when you copy the content of the source disk onto the destination disk, the destination disk keeps its original name. If you want the destination disk to have the same name as the source disk, eject the source disk after the copying procedure is complete. Then rename the destination disk icon.

To copy disks of the same size, follow these steps:

1. Insert both the source disk and the destination disk.

❖ *One-drive users:* If you're using only one disk drive, both the source disk icon and the destination disk icon must be displayed on the desktop before you can begin the copying procedure.

To display both disk icons on the desktop when you're using a 3.5-inch disk drive, insert the source disk; then eject the source disk by choosing Eject from the Special menu, and insert the destination disk.

To display both disk icons on the desktop when you're using a 5.25-inch disk drive, insert the source disk and open the 5.25-inch disk drive icon so that the disk icon is displayed. Then open the disk drive door and remove the source disk. Next, insert the destination disk and open the 5.25-inch disk drive icon so that the destination disk icon is displayed.

2. When the source disk and destination disk icons are displayed, drag the source disk icon on top of the destination disk icon. (See Figure 3-7.)

Figure 3-7
Copying disks of the same size

You can also drag the source disk icon into the destination disk window.

You'll see a message asking you to confirm that you want to erase everything on the destination disk and replace it with what's on the source disk. Click OK to continue; click Cancel to stop the copying procedure.

As the copying procedure continues, you'll see messages indicating how many blocks are left to copy.

If you want to stop the copying procedure while it's in progress, press any key. A dialog box appears asking you to confirm that you want to stop the procedure.

Warning The destination disk isn't usable until the copying procedure is complete. When doing a block-by-block copy, the Finder erases all the information on the destination disk before it starts copying. During the copying procedure, the Finder copies information a block at a time instead of a file at a time, so that information in a single file isn't necessarily copied as a unit.

If you see a message telling you that the Finder can't complete the copying procedure, turn to Chapter 7, "Troubleshooting," for tips on remedying the problem.

❖ *One-drive users.* If you're using only one disk drive, the Finder periodically displays a dialog box telling you the name of the disk to insert.

If you're using a 3.5-inch disk drive, eject the disk currently in the drive by pressing the eject button on the front of the drive. (You won't be able to eject the disk using the Eject command because this command is deactivated during the copying procedure.) Then insert the disk named in the dialog box and click OK or press Return.

If you're using a 5.25-inch disk drive, open the disk drive door and remove the disk currently in the drive. Then insert the disk named in the dialog box and click OK or press Return.

Copying disks of different sizes

When you're copying disks of different sizes, the default option is to place the content of the source disk in a folder on the destination disk. The folder will have the same name as the source disk.

❖ *RAM disk users:* When using the Finder with a RAM disk, you should set the minimum and maximum RAM disk sizes in the Control Panel to the same value. If you have not done so, a system error may occur when you try to copy a disk onto the RAM disk. For information on using the Control Panel to set RAM disk size, refer to the *Apple IIGS Owner's Guide.*

To copy disks of different sizes, follow these steps:

1. Insert both the source disk and the destination disk.

2. Drag the source disk icon on top of the destination disk icon.
(See Figure 3-8.)
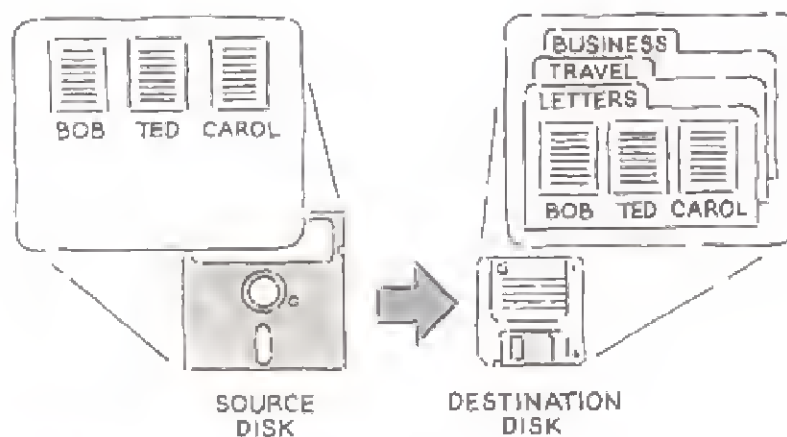
Figure 3-8
Copying disks of different sizes

You can also drag the source disk icon into the destination disk
window.

You'll see a dialog box asking you to confirm that you want to
place the content of the source disk in a folder on the destination
disk. Click OK to begin the copying procedure. Click Cancel to
stop.

If you want to stop the copying procedure while it's in progress,
press any key. A dialog box will appear asking you to confirm that
you want to stop the copying procedure. If you stop, the files and
folders that have already been copied will be in a folder on the
destination disk.

If you see a message telling you that the Finder can't complete the
copying procedure, turn to Chapter 7, "Troubleshooting," for
tips on remedying the problem.

Other copying options

The Finder gives you options other than the default options. To select one of these options, follow these steps:

1. Insert both the source disk and the destination disk.

   If you're using only one disk drive, see the instructions in "Copying Disks of the Same Size" above.

2. When the source disk and destination disk icons are displayed, hold down the Option key and drag the source disk icon on top of the destination disk icon or into the destination disk window.

3. Choose an option from the Disk Copy Alternatives dialog box shown in Figure 3-9.

Disk Copy Alternatives

○ Place the contents of "PERSONAL" in a folder on "BACKUP PERSONAL"

● Completely replace the contents of "BACKUP PERSONAL" with the contents of "PERSONAL".

○ Add the contents of "PERSONAL" to the contents of "BACKUP PERSONAL"

[Cancel]   [OK]

Figure 3-9
The Disk Copy Alternatives dialog box

□ To place the content of the source disk in a folder on the destination disk, click the first button and then click OK. This option is the default when copying disks of different sizes. See the preceding section, "Copying Disks of Different Sizes," for more information.

□ To replace the content of the destination disk with the content of the source disk, click the second button and then click OK. This option is the default when copying disks of the same size. See "Copying Disks of the Same Size" above for more information.

□ To place the content of the source disk on the destination disk without placing the copied items in a folder and without erasing the content of the destination disk, click the third button and then click OK.

If you choose the third option in the Disk Copy Alternatives dialog box and the Finder tries to copy an item when the destination disk directory already contains a file or folder with that item's name, you'll see the dialog box in Figure 3-10.
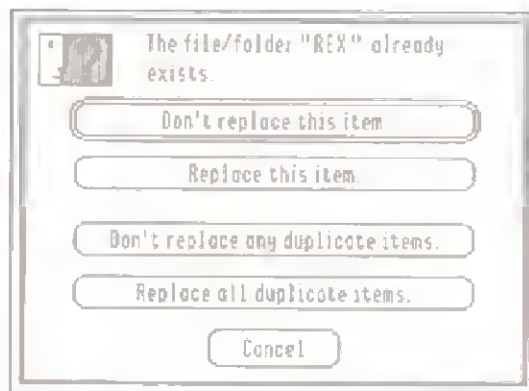
Figure 3-10
The Finder encounters a duplicate item

□ If you don't want the Finder to replace the file or folder in the destination disk directory with the file or folder being copied, click the "Don't replace this item" button.

□ If you want the Finder to replace the file or folder in the destination disk directory with the item being copied, click the "Replace this item" button.

□ If you don't want the Finder to replace *any* items in the destination disk directory that have the same names as files or folders being copied, click the "Don't replace any duplicate items" button. The dialog box will not appear again during the copying procedure.

□ If you want the Finder to replace *all* items in the destination disk directory that have the same names as items being copied, click the "Replace all duplicate items" button. The dialog box will not appear again during the copying procedure.

□ Click Cancel to stop the copying procedure.

You'll see the dialog box shown in Figure 3-11 if the Finder tries to copy an item that has the same name as one of the following items in the destination disk directory:

□ a locked file

□ a locked folder

□ an unlocked folder that contains a locked item

The file/folder "TRAVEL" already exists and is locked (or contains items that are locked). Replace it anyway?

Cancel   No   Yes
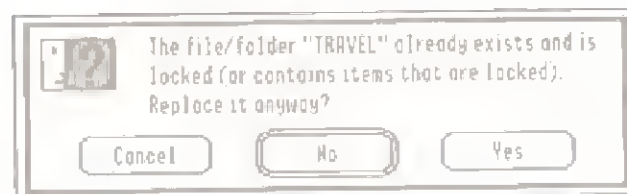
Figure 3-11
The Finder encounters a locked duplicate item

If you want to replace the item in the destination disk directory, click Yes. If you don't want to replace the item but want the Finder to continue with the copying procedure, click No. To cancel the copying procedure, click Cancel.

Erasing disks

Erasing a disk is like erasing a blackboard. Everything vanishes, and you're left with a blank slate.
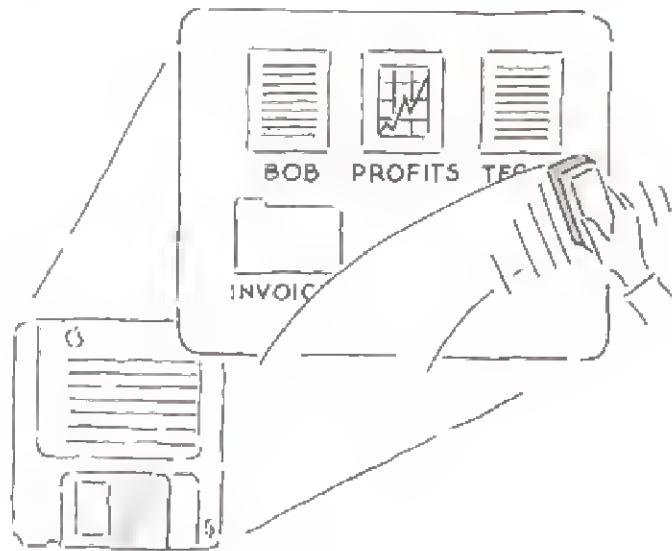
Figure 3-12
Erasing a disk

You erase a disk when you want to delete the information on it but don't need to reinitialize it for use with a different operating system. You **initialize** a disk when it's brand new or when you want to reinitialize it for use with a different operating system.

To erase a disk:

1. Select the icon that represents the disk you want to erase.

2. Choose Erase from the Special menu.

You'll see a dialog box asking you to confirm that you want to erase the disk. If you do, click OK. Otherwise, click Cancel.
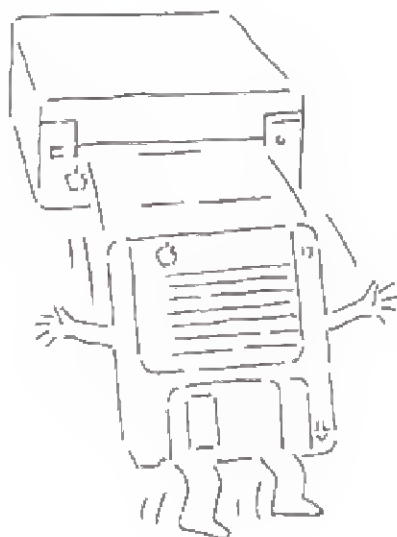
Ejecting disks

There are two occasions when you'll want to use the Finder to eject disks:

❑ when you no longer need to use the disk

❑ when you're copying a file, folder, or disk with only one disk drive

Ejecting a disk you no longer need

To eject a disk you no longer need:

1. Select the icon that represents the disk you want to eject.

2. Drag the selected icon into the Trash. If you're ejecting a 5.25-inch disk, you'll need to open the disk drive door and remove the disk.

✤ *For advanced users:* When you eject a disk, the Finder places a FINDER.ROOT file in the directory of the disk. This file tells the Finder which windows to open the next time the disk icon is placed on the desktop. The Finder also creates a FINDER.DATA file for each window on the desktop that tells the Finder the size and position of the window and the position and color of each icon in the window.

If you want the Finder to eject the disk more quickly, you can change the default option so that the Finder doesn't create FINDER.ROOT and FINDER.DATA files when you eject a disk. Choose Preferences from the Special menu and turn off the "Save Finder information onto disk" option.

If you hold down the Option key while you drag a disk icon into the Trash, the Finder does the opposite of what is specified in the Preferences menu. For example, if the "Save Finder information onto disk" option is turned on and you hold down the Option key while dragging a disk icon into the Trash, the Finder won't save the Finder information onto disk.

Ejecting a disk when copying with only one drive

When copying a file, folder, or disk with only one disk drive, you must place both the source disk icon and the destination disk icon on the desktop before you can begin the copying procedure. To do this, insert the source or destination disk; next, eject the disk but leave its icon on the desktop; then insert the other disk.

To eject a 3.5-inch disk while leaving the disk icon on the desktop, follow these steps:

1. Select the disk icon you want to eject.

2. Choose Eject from the Special menu.

   The disk will be ejected and the disk icon will be dimmed.

You also can eject the disk by pressing the eject button on the disk drive.

To eject a 5.25-inch disk while leaving the disk icon on the desktop, follow these steps:

1. If you haven't already done so, open the 5.25-inch disk drive icon. The disk icon that represents the disk in the drive will be displayed.

2. Open the disk drive door and remove the disk. The disk icon will not be dimmed.

See "Copying Disks" in this chapter and "Moving and Copying Items Onto a Different Disk" in Chapter 4 for instructions on copying with one disk drive.

Chapter 4

Working With Files and Folders

You can use the Finder to perform these tasks with files and folders:

□ place related files into folders

□ move and copy files and folders

□ remove files and folders you no longer need

□ lock files and folders so that you don't accidentally remove, replace, or rename them

□ unlock files and folders when they no longer need to be protected

Using folders

Folders give you a way of organizing information on disks. You might have one folder where you keep correspondence, another where you keep poetry, and a third where you keep financial records. You also can create folders within folders. In the folder containing financial records, for example, you might have one folder for tax records, another for budgets, and a third for your stock portfolio.

Putting files in desktop folders is like putting paper documents in file folders: it focuses your attention on a subset of information so you don't have to search through everything on a disk to find the documents you need.

A **pathname** is the complete name of a file. It includes the name of the disk a file is stored on, followed by the name of any folder (or of any folders within folders) the file is stored in, followed by the file's name.

The pathname /SPORTS/HORSERACING/SECRETARIAT, for example, indicates that SECRETARIAT is a file in a folder called HORSERACING on a disk called SPORTS.

CURRENCY

FLIGHT SCHEDULES

SECRET

DIARY

PARIS

ARTICLE

TRAVEL

Figure 4-1
Folders store related documents
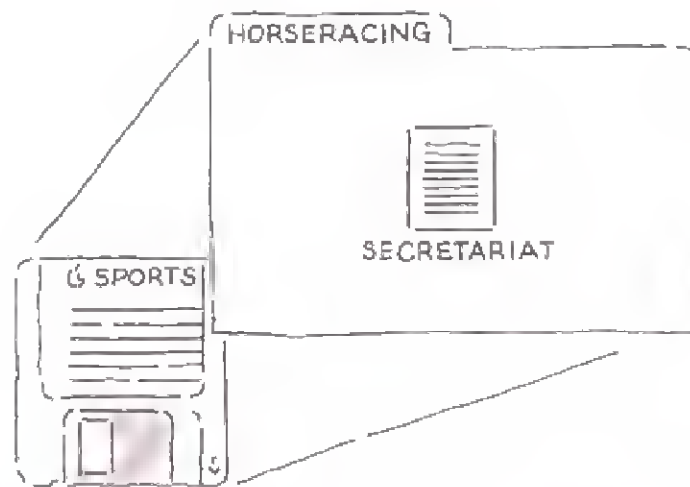
PATHNAME= SPORTS/HORSERACING/SECRETARIAT

Figure 4-2
A pathname

In some Apple IIGS applications, you may encounter the term **subdirectory.** A subdirectory and a folder are exactly the same thing. For more information on subdirectories and pathnames, see "Opening a Subdirectory" and "ProDOS Pathname," both in Chapter 8.

Creating a new folder

Before you can put information in a folder, you need to create the folder. Here's how:

1. Open the icon that represents the disk that will contain the new folder. To place a new folder inside an existing folder, open the icon of the folder that will contain the new folder.

2. Choose New Folder from the File menu.

A folder called UNTITLED appears in the active window. If there is already a folder named UNTITLED, the new folder will be called UNTITLED.A. This process continues until the Finder reaches UNTITLED.Z. If all possible names through UNTITLED.Z are taken, the Finder cannot create any more new folders.

3. If you want to rename the folder, select it and choose Rename from the File menu, or double-click the folder's name.

4. Type a new name for the folder or edit the name that's displayed. Then press Return.

The name must have no more than 15 characters, and the first character must be a letter. Subsequent characters can be letters, numbers, or periods.

❖ *By the way:* The maximum length of a pathname is 64 characters. If you will be nesting several folders inside the folder you just created, you should make the name of each folder as short as possible.

Opening a folder

To open a folder, double-click the folder icon or select the icon and choose Open from the File menu. A window appears that displays a directory of icons representing the content of the folder. (See Figure 4-3.)

Figure 4-3
An open folder

Moving and copying files and folders

The Finder gives you several alternatives when **moving** and **copying** items (files or folders).

□ You can copy an item and place the copy in the same folder or **disk directory** as the original. Use this procedure when you need two copies of an item, an original and a version that you want to modify.

□ You can move an item into a folder on the same disk as the original. This procedure allows you to organize information by grouping related materials in a folder.

□ You can move an item onto a different disk.

□ You can copy an item onto a different disk. This gives you a backup copy of the item in case you damage the disk that contains the original or inadvertently modify the original.

When you **move** a file or folder, you transfer it to a different folder or onto a different disk. When you **copy** a file or folder, you keep the original in its current location and create a duplicate.

A **disk directory** is a list of the files and folders on a disk. The disk directory does not include files or folders that have been nested inside other folders.

Throughout the explanations of moving and copying, the following terms are used:

The *source disk* and the *source folder* contain the items you want to move or copy.

The *destination disk* and the *destination folder* are the disk and folder to which you will be copying or moving items.

Table 4-1 is a brief summary of the moving and copying operations.

Table 4-1
Moving and copying summary

If you want to...	Follow this procedure
Place a copy of an item in the same folder or disk directory as the original item	Select the icon that represents the item you want to copy, then choose Duplicate from the File menu. Whenever the dialog box appears, name the duplicate and click OK.
Move an item into a folder on the same disk as the original item	Drag the icon that represents the item you want to move on top of the icon that represents the destination folder.
Move an item onto a different disk	Drag the icon that represents the item you want to move on top of the icon that represents the destination disk or destination folder. Then drag the icon that represents the original item into the Trash.
Copy an item onto a different disk	Drag the icon that represents the item you want to copy on top of the icon that represents the destination disk or destination folder.

Complete instructions for these procedures are given in the following sections.

You can use the Finder to move or copy files or folders onto ProDOS disks only. If you want to move or copy files or folders onto Pascal or DOS 3.3 disks, you'll need to use the System Utilities, described in Part 2. To start the System Utilities, open the SYSUTIL.SYSTEM file in the SYS.UTILS folder on the system disk.

See "Copying Disks" in Chapter 3 for instructions on making backup copies of whole disks.

Copying items into the same folder or disk directory

When you want to alter a copy of an item while leaving the original unchanged (as you would with a form letter), it is often useful to copy the item into the same folder or disk directory as the original.

To make copies of files or folders and place the copies in the same folder or disk directory as the originals:

1. Select the icons that represent the items you want to copy.

2. Choose Duplicate from the File menu.

   You'll see a dialog box showing the **default** name of the duplicate of the first item you selected.

The **default** name is the name the Finder provides unless you specify some other name.

3. If you like, type a different name for the duplicate or edit the name that's displayed in the dialog box. To cancel the duplicating operation, click Cancel.

   See "Selecting and Editing Text" in Chapter 2 for editing instructions.

4. Click OK. If you selected more than one item to duplicate and you want to skip to the next item without duplicating this one, click the Skip File button.

5. If you selected more than one item to duplicate, a dialog box will appear showing the default name of the duplicate of the next item you selected. Repeat Steps 3 and 4 for each selected item.

❖ *By the way:* To cancel the duplicating operation while it's in progress, press any key. A dialog box appears asking whether you want to cancel the operation. If you click Yes, the folder or disk directory will contain any duplicate copies that were made before you canceled the operation.

If you see a dialog box stating that the Finder can't complete the operation, turn to Chapter 7, "Troubleshooting," for tips on remedying the problem.

Moving and copying items into a folder or onto a different disk

This section explains the options available when moving items to a folder on the same disk or when moving or copying items to a different disk.

Moving items into a folder on the same disk

A useful organizational technique is to move files that contain related information into the same folder. You can take your organization one step further by placing folders within folders as well.

To move files or folders inside a folder on the same disk:

1. If you haven't already done so, insert the source disk and open the necessary disk and folder icons so that the icons of the files and folders you want to move are displayed.

2. Make sure the destination folder icon or destination folder window is displayed.

3. Drag the icons of the items you want to move on top of the destination folder icon or into the destination folder's window, as shown in Figure 4-4.
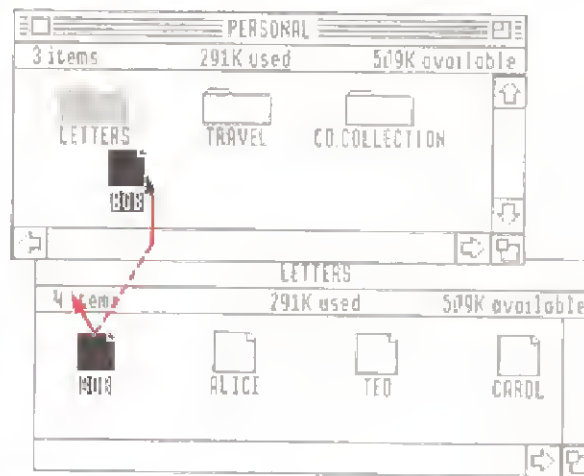
Figure 4-4
Dragging an item into a folder's window

If you're dragging items on top of a folder icon, don't release the
mouse button until the destination folder icon is highlighted.
The highlighting tells you that the items you're moving will be
placed inside the folder.

4 . If the destination folder contains an item with the same name as
an item you're moving, you'll see the dialog box in Figure 4-5.

Figure 4-5
The Finder encounters a duplicate item

Choose an option:

- If you don't want the Finder to replace the item in the destination folder with the item being moved, click the "Don't replace this item" button.

- If you want the Finder to replace the item in the destination folder with the item being moved, click the "Replace this item" button.

- If you don't want the Finder to replace *any* items in the destination folder that have the same names as items being moved, click the "Don't replace any duplicate items" button. The dialog box will not appear again during the moving procedure.

- If you want the Finder to replace *all* items in the destination folder that have the same names as items being moved, click the "Replace all duplicate items" button. The dialog box will not appear again during the moving procedure.

- If you want to cancel the moving procedure, click Cancel.

5. You'll see the message shown in Figure 4-6 if an item you're trying to move has the same name as one of the following items in the destination folder:

- a locked file

- a locked folder

- an unlocked folder that contains a locked item

Figure 4-6
The Finder encounters a locked duplicate item

If you want to replace the item in the destination folder, click Yes. If you don't want to replace the item but want the Finder to continue the moving procedure, click No. To cancel the moving procedure, click Cancel.

❖ *By the way:* To cancel the move while it's in progress, press any key. A dialog box appears asking whether you want to cancel the operation. If you click Yes, the destination folder will contain those items that the Finder moved before you canceled the procedure.

If you see a dialog box stating that the Finder can't complete the move, turn to Chapter 7, "Troubleshooting," for tips on remedying the problem.

Moving and copying items onto a different disk

When you copy items onto another disk, you can copy them into the disk directory or into a folder on the disk. If you want to move the items rather than copy them, simply remove the original items from your source disk after the copying procedure is complete.

❖ *RAM disk users:* When using the Finder with a RAM disk, you should set the minimum and maximum RAM disk sizes in the Control Panel to the same value. If you have not done so, a system error may occur when you try to move or copy items onto the RAM disk. For information on using the Control Panel to set RAM disk size, refer to the *Apple IIGS Owner's Guide.*

To move and copy items onto a different disk:

1. If you haven't already done so, insert the destination disk. If you're copying the items into a folder, open the icons necessary to display the folder. If you want to copy the items into a disk directory window or a folder window, display the appropriate window.

2. If you haven't already done so, insert the source disk and open any necessary icons so that the icons of the files and folders you want to copy are displayed.

❖ *One-drive users:* If you're moving or copying items with one disk drive, the icons representing both the items you want to copy and the destination folder or the destination disk must be displayed before you can begin the copying operation.

If you're using a 3.5-inch disk drive, insert the destination disk, open any necessary icons, and eject the destination disk by choosing Eject from the Special menu; then insert the source disk and open any necessary icons.

If you're using a 5.25-inch disk drive, insert the destination disk, open the 5.25-inch disk drive icon so that the disk icon is displayed, and open any necessary icons. Next, remove the destination disk. Then insert the source disk, open the 5.25-inch disk drive icon so that the source disk icon is displayed, and open any necessary icons.

3. Drag the icons of the items you want to copy on top of the icon that represents the destination disk or destination folder, as shown in Figure 4-7.
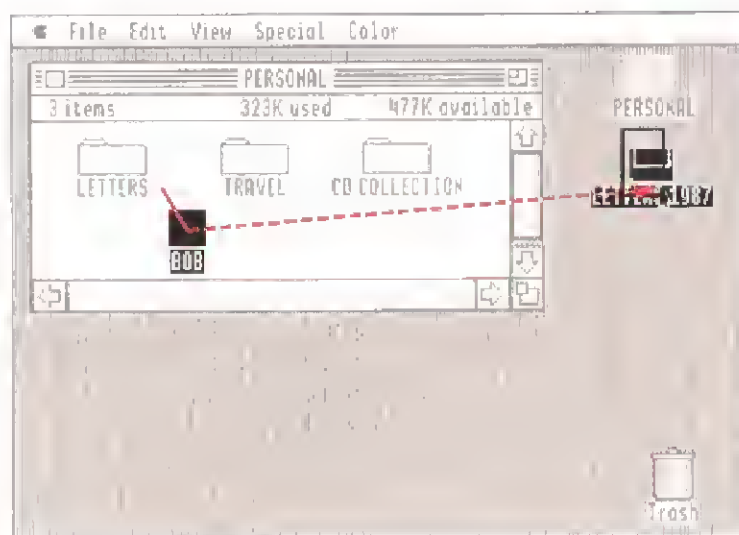
Figure 4-7
Dragging an item onto a different disk

When you drag the items being copied, don't release the mouse button until the destination disk icon or destination folder icon is highlighted. The highlighting tells you that the icons you're copying will be placed inside the destination disk or folder.

You also can drag the icons into a disk directory window or a folder window.

❖ *One-drive users:* If you're using only one drive, the Finder periodically displays a dialog box telling you the name of the disk to insert.

If you're using a 3.5-inch disk drive, eject the disk currently in the drive by pressing the eject button on the front of the drive. (You won't be able to eject the disk using the Eject command because this command is deactivated during the copying procedure.) Then insert the disk named in the dialog box and click OK or press Return.

If you're using a 5.25-inch disk drive, open the disk drive door and remove the disk currently in the drive. Then insert the disk named in the dialog box and click OK or press Return.

4. If the Finder tries to copy an item into a folder or a disk directory that contains an item with the same name, you'll see the dialog box in Figure 4-8.

The file/folder "BOB" already exists

Don't replace this item.

Replace this item

Don't replace any duplicate items

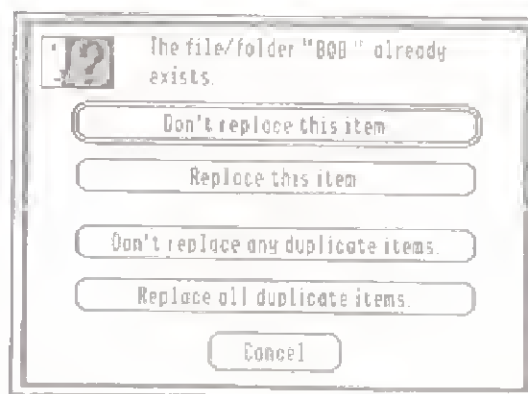Replace all duplicate items

Cancel
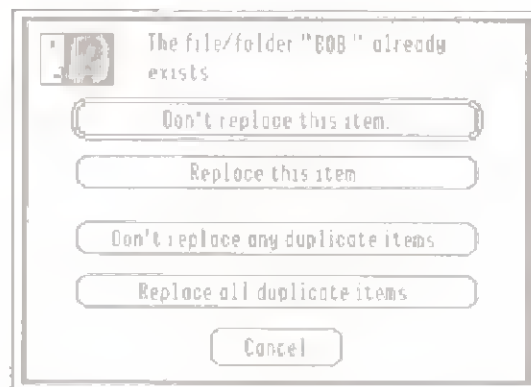
Figure 4-8
The Finder encounters a duplicate item

Choose an option:

- ☐ If you don't want the Finder to replace the item in the destination folder or the destination disk directory with the item being copied, click the "Don't replace this item" button.

- ☐ If you want the Finder to replace the item in the destination folder or destination disk directory with the item being copied, click the "Replace this item" button.

- ☐ If you don't want the Finder to replace *any* items in the destination folder or destination disk directory that have the same names as items being copied, click the "Don't replace any duplicate items" button. The dialog box will not appear again during the copying procedure.

- ☐ If you want the Finder to replace *all* items in the destination folder or the destination disk directory that have the same names as items being copied, click the "Replace all duplicate items" button. The dialog box will not appear again during the copying procedure.

- ☐ If you want to cancel the copying procedure, click Cancel.

5. You'll see the message shown in Figure 4-9 if an item you're trying to copy has the same name as one of the following items in the destination folder or the destination disk directory:

- ☐ a locked file

- ☐ a locked folder

- ☐ an unlocked folder that contains a locked item

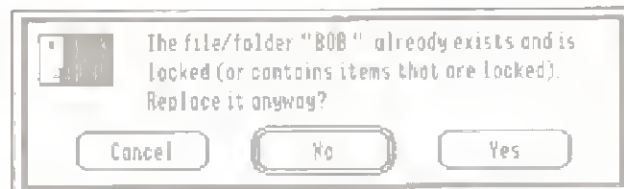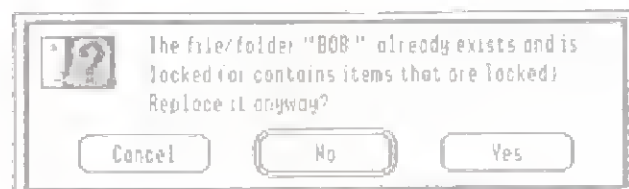**Figure 4-9**
The Finder encounters a locked duplicate item

If you want to replace the item in the destination folder or destination disk directory, click Yes. If you don't want to replace the item but want the Finder to continue the copying procedure, click No. To cancel the copying procedure, click Cancel.

6. If you are moving items rather than copying them, drag the original items, which are still on your source disk, into the Trash. Then select Empty Trash from the Special menu.

❖ *By the way:* To cancel the copying procedure while it's in progress, press any key. A dialog box appears asking you to confirm that you want to stop the operation. If you click Yes, the destination disk or destination folder will contain the items that were copied before you canceled the operation.

If you see a message telling you that the Finder can't complete the copying procedure, turn to Chapter 7, "Troubleshooting," for tips on remedying the problem.

Other moving and copying options

Normally, when moving or copying items, the Finder displays the dialog box shown in Figure 4-10 the first time it finds an item in the destination folder or the destination disk directory that has the same name as an item you're moving or copying. If you wish, you can give the Finder instructions for handling duplicate files and folders before you begin the copying or moving procedure.

To do so, hold down the Option key while dragging the icons that represent the items you want to move or copy on top of the destination disk icon or destination folder icon. You can also drag the icons you want to move or copy into a disk directory window or a folder window.

You'll see the File Copy Alternatives dialog box shown in Figure 4-10.

File Copy Alternatives

Replace items case by case

Don't replace any duplicate items

Replace all duplicate items

Cancel
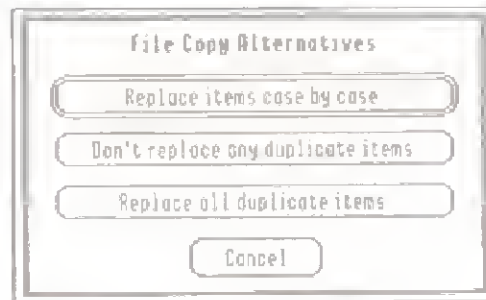
Figure 4-10
The File Copy Alternatives dialog box

Choose an option:

☐ If you want the Finder to prompt you each time it finds an item in the destination disk directory or the destination folder that has the same name as an item being moved or copied, click the "Replace items case by case" button. This is the option the Finder chooses if you don't specify otherwise.

☐ If you don't want the Finder to replace *any* items in the destination disk directory or the destination folder that have the same names as items being moved or copied, click the "Don't replace any duplicate items" button.

☐ If you want the Finder to replace *all* items in the destination disk directory or the destination folder that have the same names as items being moved or copied, click the "Replace all duplicate items" button.

☐ If you want to cancel the copying operation, click Cancel.

Figure 4·11
Discarding files and folders

Discarding and recovering files and folders

The Finder lets you discard a file or folder whenever its icon is visible on the desktop. You can remove a file or folder by dragging its icon into the Trash, or by selecting the icon and then choosing the Remove command from the Special menu. When you drag an icon into the Trash, the Finder may not immediately free up the disk space that the file or folder occupies. When you use the Remove command, the Finder frees up the disk space immediately.

Discarding files and folders into the Trash

To remove a file or folder using the Trash:

1. If necessary, open the folder or disk that contains the items you want to remove.

2. Drag the icons of the items you want to remove on top of the Trash icon or into the Trash window. The Trash icon will expand to show that the Trash is no longer empty.

3. If you want to remove the files or folders in the Trash and free up the space they occupy on the disk, choose Empty Trash from the Special menu. The Trash icon will return to its original size.

   If you don't choose Empty Trash, the Finder will delete the content of the Trash at its convenience.

❖ *Note:* There's no way to predict precisely when the Finder will empty the Trash. There are, however, certain events that ensure immediate disposal, such as opening an application, copying files, opening any directory window, and ejecting the disk that contained the icon. If you change your mind after discarding a file or folder, don't waste any time retrieving it from the Trash.

Recovering files and folders from the Trash

You can recover a file or folder from the Trash as long as its icon is visible in the Trash window. To recover items from the Trash:

1. Open the Trash icon by double-clicking it, or by selecting it and choosing Open from the File menu.

   If necessary, scroll until you see the icon that represents what you want to recover.

2. Drag the icon out of the Trash window and onto the desktop or into another window. If you want to restore the icon to its previous position but can't remember where on the desktop it was located, choose Put Back from the File menu after selecting the icon.

Discarding files and folders using the Remove command

To discard a file or folder using the Remove command:

1. If necessary, open the folder or disk that contains the items you want to remove.

2. Select the icons of the items you want to remove.

3. Choose Remove from the Special menu.

   You will see a dialog box asking whether you really want to remove the selected items.

4. Click OK to remove the items; click Cancel to discontinue the operation.

❖ *By the way:* If you don't want the Finder to display a dialog box each time you choose the Remove command, choose Preferences from the Special menu and turn off the "Double-check before removing files and folders" option.

Locking and unlocking files and folders

Locking a file or folder ensures that you don't accidentally remove, replace, or rename it. **Unlocking** a file or folder removes this protection.

Figure 4-12
Locking a file

Figure 4-13
Unlocking a file

If you try to put a locked file or folder in the Trash, delete it using the Remove command, or replace it during a copying operation, the Finder displays a dialog box asking you to confirm your decision. If you try to rename a locked file or folder, the Finder does not respond.

Locking files and folders

To lock a file or folder:

1. Select the icon that represents the file or folder you want to lock.

2. Choose Get Info from the File menu.

3. Click the Locked check box. An X appears.

4. Close the Get Info window.

Unlocking files and folders

To unlock a locked file or folder:

1. Select the icon that represents the file or folder you want to unlock.

2. Choose Get Info from the File menu

3. Click the Locked check box. The X disappears.

4. Close the Get Info window.

Chapter 5

Starting Applications

An **application** is a program designed for a particular purpose such as home finance, education, or word processing.

One of the most important tasks you'll perform with the Finder is starting **applications.**

When you start applications from the Finder, it's easy to switch from one application to another and to use the Finder's file and disk-handling capabilities to keep track of the documents you create with each application.

Say you're the president of your homeowners' association. You want to use the Apple IIGS to write up the minutes of the annual meeting and to prepare an invitation to the association's upcoming picnic. Here's how you might use the Finder to maximize your efficiency:

☐ Start up the Finder.

☐ From the Finder, start up a word processing application and use it to write the minutes of the annual meeting.

☐ Exit the word processing application and return to the Finder. Use the Finder to make a backup copy of the minutes on another disk.

☐ From the Finder, start up a graphics application and use it to create the picnic invitation.

☐ Exit the graphics applications and return to the Finder. Use the Finder to place a backup copy of the invitation on the same disk as the backup copy of the minutes.

Keep in mind that some applications include the Finder on the same disk as the application. If that's the case, you won't need to use the system disk at all.

Important   If the application you're using is DOS 3.3-based or Pascal-based, you can't use the Finder to start it. Instead, start it using the startup disk that came with the application. If you don't know what operating system an application uses, check the manual that accompanied the application. You also can use the Catalog a Disk option in the System Utilities to identify a disk's operating system. For information on this option, see "Cataloging a Disk" in Chapter 11.

Starting an application from an application icon

The simplest way to start an application is to open the icon that represents it by double-clicking the icon, or by selecting it and choosing Open from the File menu.

Starting an application from a document icon

You can sometimes start an application by opening an icon that represents a document created with the application. Double-click the document icon, or select it and choose Open from the File menu.

If the disk containing the application used to create the document is not in one of your disk drives, or is in a 5.25-inch disk drive whose icon has not been opened, you'll see the message shown in Figure 5-1.

The application "MY APPLICATION" can't be found for this document

Cancel   Try Again

Figure 5-1
The Finder is unable to find the appropriate disk

You'll also see this message if the application has been moved or renamed.

Check to make sure that you have inserted the disk that contains the application. If the application is on a 5.25-inch disk, make sure that the disk drive door is closed and that you have opened the 5.25-inch disk drive icon so that the 5.25-inch disk icon is on the desktop. Then click Try Again. If you realize that you don't have the application on a disk, click Cancel.

If the Finder is unable to associate the document you tried to open with the application used to create it, you'll see the message shown in Figure 5-2.

Figure 5-2
The Finder can't associate this document with an application

Click OK. Then open the application used to create the document and open the document from the application. The next time you try to open the document, you should be successful. If you're not, continue to start the application by opening the application icon rather than the document icon.
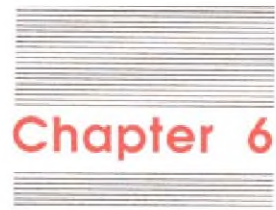
Chapter 6

Finder Menus

This chapter has two parts:

☐ "Menu Commands" includes a brief description of each Finder command, organized by menu.

☐ "Menu Shortcuts" lists the keystrokes used to activate menu commands from the keyboard.

Menu commands

Titles of menus appear in the menu bar across the top of the screen.

Pressing the mouse button when the pointer is on a menu title displays the menu. Menu commands that are displayed in black type can be used right now; those that are dimmed cannot be used right now. If you choose a dimmed command, you'll see a dialog box explaining how to activate the command. If you don't want the Finder to display this dialog box when you choose a dimmed menu command, choose Preferences from the Special menu and turn off the "Display help for dimmed menu commands" option.

The Apple menu

The commands in the Apple menu provide general information about the Finder. The Apple menu also lists **desk accessories** that have been installed on your system.

A desk accessory is a "mini-application" that is available from the Apple menu regardless of which application you are using.

About the Finder

Names the authors and gives the version number of the Finder.

Figure 6-1
The Apple menu

Help

Displays a dialog box listing Finder operations about which you can get information. Click the button next to the operation you're interested in; then click OK. The Finder displays a window with information about that operation.
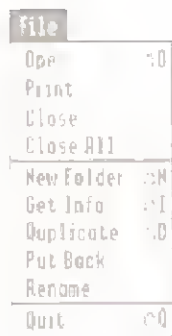
Figure 6-2
The File menu

The File menu

The commands in the File menu help you to manipulate files, folders, disks, icons, and windows.

Open

Opens any selected icon.

If the selected icon represents a 5.25-inch disk drive, choosing Open displays another icon representing the disk in that drive.

If the selected icon represents a disk or folder, choosing Open displays a directory window that lists the contents of the disk or folder.

If the selected icon represents an application, choosing Open starts the application. If the icon represents a document, choosing Open may start the application that was used to create the document. If the Finder is unable to associate an application with the document you tried to open, a dialog box appears. See Chapter 5, "Starting Applications," for more information.

Print

Tries to print the documents represented by the selected icons. If the selected icons were created using different applications, the Finder will continue to print until it comes across a document created with an application different from that of the first document printed.

Refer to the user's manual for each application for more information on how to print with that application. Refer to your printer manual for information about using your printer.

Close

Closes the active window. The next frontmost window, if there is one, becomes the active window.

❖ *For advanced users:* When you close a window, the Finder places a FINDER.DATA file in the directory of the window being closed. This file "remembers" the position and size of the window on the desktop and the position and color of the icons in the window. The next time you open the window, it will be in the same position on the desktop and the icons will be the same color and in the same position in the window.

You can minimize the time it takes the Finder to close a window by changing the default option so that the Finder doesn't create the FINDER.DATA file when you close a window. Choose Preferences from the Special menu and turn off the "Save Finder information onto disk" option.

If you hold down the Option key while you close a window, the Finder does the opposite of what is specified in the Preferences menu. For example, if the "Save Finder information onto disk" option is turned on and you hold down the Option key while closing a window, the Finder won't save the Finder information onto disk.

Close All

Closes all windows.

❖ *For advanced users:* When you close all windows, the Finder places a FINDER.DATA file in the directory of each window being closed. These files "remember" the size and position of each window on the desktop and the position and color of the icons in each window. The next time you open a window, it will be in the same position on the desktop and the icons will be the same color and in the same position in the window.

You can minimize the time it takes the Finder to close all windows by changing the default option so that the Finder doesn't create FINDER.DATA files when you choose Close All. Choose Preferences from the Special menu and turn off the "Save Finder information onto disk" option.

If you hold down the Option key while you choose Close All, the Finder does the opposite of what is specified in the Preferences menu. For, example, if the "Save Finder information onto disk" option is turned on and you hold down the Option key while you choose Close All, the Finder won't save the Finder information onto disk.

New Folder

Places an empty folder in the active window.

The folder will be named UNTITLED unless that name is already used in the directory. In that case, the folder will be named UNTITLED.A. This process continues until the Finder reaches UNTITLED.Z. If all possible names through UNTITLED.Z are taken, the Finder cannot create any more new folders in that directory.

Get Info

Displays a window that contains information about the selected icon.

For file, folder, and disk icons, the information includes

□ the kind of icon selected

□ the size of the item the icon represents

If the icon represents a file or folder, the information also includes

□ the name of the disk containing that file or folder

□ the date the item was created

□ the date the item was last modified

□ whether the item is locked or unlocked

See "Locking and Unlocking Files and Folders" in Chapter 4 for more information.

You also can get information about the Trash icon and 5.25-inch disk drive icons.

Duplicate

Duplicates the selected file or folder and places it in the same folder or disk directory as the original. See "Copying Items Into the Same Folder or Disk Directory" in Chapter 4 for more information.

Put Back

Puts all selected files and folders on the desktop or in the Trash window back in the folder or disk directory window from which they were most recently moved.

Rename

Lets you rename the selected icon. When you choose Rename, a box appears around the name of the selected icon. Type a new name or edit the existing name; then press Return. For more information, see "Renaming Icons" in Chapter 2.

Quit

Quits the Finder.

❖ *For advanced users:* When you choose Quit, the Finder places a FINDER.ROOT file in the directory of each disk. These files tell the Finder which windows to display the next time the disk icons are placed on the desktop. The Finder also creates a FINDER.DATA file for each window on the desktop that tells the Finder the size and position of the window and the color and position of the icons in the window.

If you want the Finder to shut down more quickly, you can change the default option so that the Finder doesn't create FINDER.ROOT and FINDER.DATA files when you choose Quit. Choose Preferences from the Special menu and turn off the "Save Finder information onto disk" option.

If you hold down the Option key while you choose Quit, the Finder does the opposite of what is specified in the Preferences menu. For example, if the "Save Finder information onto disk" option is turned on and you hold down the Option key while choosing Quit, the Finder won't save the Finder information onto disk.

Figure 6-3
The Edit menu

The Edit menu

The only command in the Edit menu that can be used with the Finder is Show Clipboard. This command displays the information on the **clipboard**, a temporary storage area for information that has been cut or copied using an application. Other commands in the Edit menu can be used for text editing with some desk accessories available for the Apple IIGS.

The View menu

Commands in the View menu let you change the way information in the active directory window is displayed. The ways in which you can view directories are divided into two categories: by icon and by text.

In the two possible icon views—By Icon and By Small Icon—icons are initially arranged in rows and columns. If you alter this format, you can return the icons to a row and column arrangement by choosing Cleanup from the Special menu.

In any of the four possible text views—By Name, By Date, By Size, and By Kind—information is arranged in columns.

To select an icon displayed in any of the views, click the icon or the icon's name.

The current view used to display the directory of the active window is marked in the View menu by a check mark.

Figure 6-4
The View menu

By Icon

Displays the content of the active directory window as full-sized icons, with the icon name below the icon. You can change the position of the icons by dragging them.

By Small Icon

Displays the content of the active directory window as small icons, with the icon name to the right of the icon. You can change the position of the icons by dragging them. Viewing by small icon is useful when you have several items in a directory and want to be able to see all of their icons at once.

By Name

Lists the content of the active directory window alphabetically by name.

By Date

Lists the content of the active directory window chronologically by date of last modification. The document most recently changed is listed first. For folders, the modification date indicates when you created a folder or changed its content by adding or removing items.

By Size

Lists the content of the active directory window by size, largest first. This view is useful for seeing which files are taking up the most room on a disk. Each folder is listed according to the size of the folder itself, which is always 0.5K.

By Kind

Lists the content of the active directory window by type of item. If the window contains a file, this view lists what kind of file it is—a BASIC application, a ProDOS application, and so on.
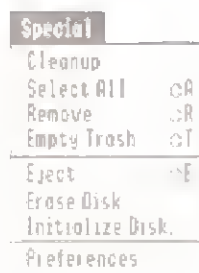
Figure 6-5
The Special menu

The Special menu

Commands in the Special menu are used to manipulate disks and icons and to set preferences.

Cleanup

Arranges all icons in the active window in neat rows and columns. If no directory windows are displayed, Cleanup aligns icons on the desktop.

This option can be used only when you're viewing the content of a directory by icon or by small icon.

Select All

Selects all icons in the active window or, if no windows are displayed, all icons on the desktop.

Remove

Permanently deletes all selected files and folders if you click OK when the Remove dialog box appears. If you don't want the dialog box to appear when you choose the Remove command, choose the Preferences command from the Special menu and turn off the "Double-check before removing files and folders" option.

Empty Trash

Permanently deletes the files and folders in the Trash and frees up the space they occupied on disk.

Eject

Ejects the 3.5-inch disk represented by the selected icon. If no 3.5-inch disk icons are selected, the Finder ejects any 3.5-inch disks in your disk drives. Ejecting a disk does not remove its icon or its directory window from the desktop. See "Ejecting Disks" in Chapter 3 for more information.

❖ *Note:* The Eject command has no effect on 5.25-inch disks.

Erase Disk

Erases all information on the disk represented by the selected icon. See "Erasing Disks" in Chapter 3 for more information.

Initialize Disk

Initializes the disk represented by the selected icon as a ProDOS disk. When you initialize a disk, all information on the disk is erased. See "Initializing Disks" in Chapter 3 for more information.

Preferences

The Preferences dialog box lets you control several Finder options. When an option is turned on, an *X* appears in the check box next to the option name. When an option is turned off, the check box is blank. Click the check box to add or remove the *X*.

Following is a list of the options that appear in the Preferences dialog box. Each of these options is turned on when the Finder is started for the first time. When you make changes in the Preferences dialog box, the changes go into effect immediately. Preferences are saved on the system disk in a file called FINDER.DEF when you quit the Finder or start an application.

Display help for dimmed menu commands: When you choose a dimmed menu command, a dialog box appears explaining how to activate the command. If you don't want this dialog box to appear, turn off this option.

Double-check before removing files and folders: When you choose Remove from the Special menu, a dialog box appears asking you to confirm that you want to remove the selected items. If you don't want this dialog box to appear, turn off this option.

Color selected icon's background instead of its outline: When you select an icon and then choose a color from the Color menu, the Finder colors the background of the selected icon. To color the icon's outline instead of its background, turn off this option. See "The Color Menu" below for more information.

Save Finder information onto disk: When you close a window or choose Quit, the Finder creates a FINDER.DATA file on the disk that "remembers" the window's size and position on the desktop and the color and position of icons in the window. When you eject a disk by dragging it into the Trash, or when you quit the Finder, the Finder creates a FINDER.ROOT file on the disk that "remembers" which windows were open when the disk was ejected. If you don't want the Finder to create these files, turn off this option.

Hide the Finder's data files: When you display the directory of a window or of a disk, the Finder does not list the FINDER.DATA and FINDER.ROOT files. If you want these files to be displayed in the directory, turn off this option.

Do a smart block copy when copying disks of the same size: When copying disks of the same size, the Finder copies disks a block at a time but normally copies only those blocks that contain information. This is called a *smart block copy* because the Finder is copying only those blocks that are useful. If you want the Finder to copy all blocks regardless of whether they contain information, turn off this option. If you copy disks of the same size and then find you are unable to use the copy you created, you may want to turn this option off and try making another copy.

The Color menu

This menu lets you change the color of icons.

Select the icons you want to color; then choose a color from the Color menu. An option in the Preferences dialog box determines whether the outline or background of icons is colored. (See Figure 6-6.)
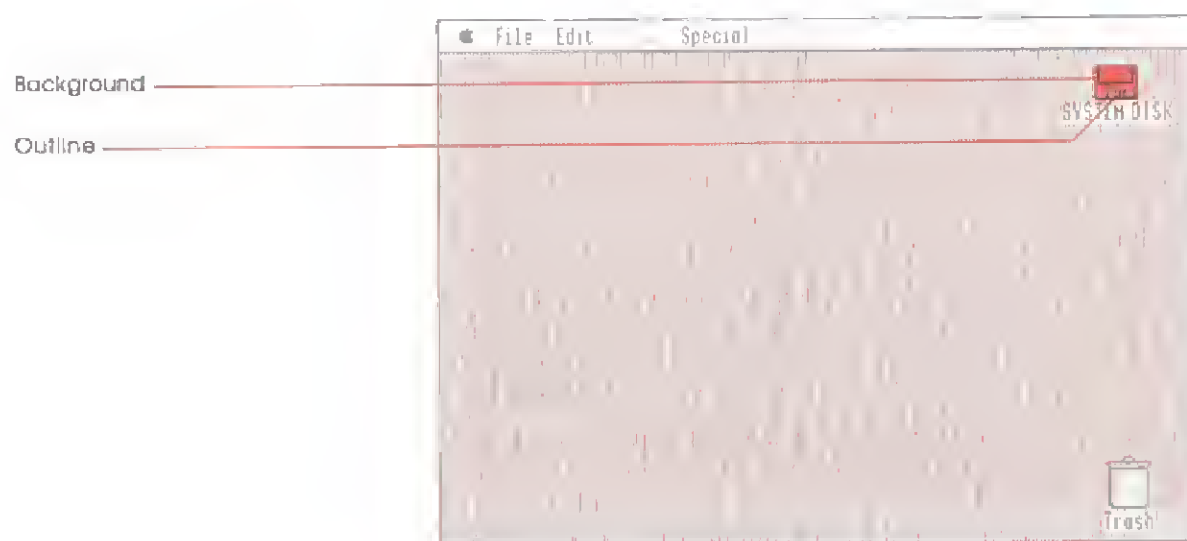
Background ────────────

Outline ────────────

Figure 6-6
A colored icon

The Finder's default option is to color the background of the selected icon. If you want to color the outline, choose Preferences from the Special menu and remove the *X* in the check box next to "Color selected icon's background instead of its outline." See "Preferences" earlier in this chapter for more information.

If you hold down the Option key while you choose a color from the Color menu, the color you have chosen will be applied to the opposite portion of the icon than is normally the case. For example, if "Color selected icon's background instead of its outline" is checked in the Preferences dialog box and you hold down the Option key while you choose a color from the Color menu, the icon's outline will be colored.

The colors of the icons in a window are saved in a FINDER.DATA file when you close the window, drag the disk icon into the Trash, or quit the Finder. See "Close" in "The File Menu" earlier in this chapter for more information about the FINDER.DATA file.

Important	The Color option works best when used to color black-and-white icons. If you color a gray icon, such as a 5.25-inch disk drive icon, or an icon that starts out colored, such as the RAM disk icon, the color that is applied to the icon will not necessarily be the color you choose from the Color menu.

Menu shortcuts

In some instances, you may prefer to use the keyboard to give a command instead of using the mouse to choose a command from a menu. Table 6-1 lists the keystrokes that can be used to give certain menu commands.

Table 6-1
Menu shortcuts

To choose	Press
Duplicate	⌘-D
Eject	⌘-E
Empty Trash	⌘-T
Get Info	⌘-I
New Folder	⌘-N
Open	⌘-O
Quit	⌘-Q
Remove	⌘-R
Select All	⌘-A

Chapter 7

Troubleshooting

This chapter lists, in alphabetical order, several of the messages you may see while using the Finder. Each listing explains why the dialog box appears and how to respond to it. This list doesn't include many messages that are described in other parts of this guide, nor does it include messages that are self-explanatory, such as "Are you sure you want to cancel this operation?"

An application can't be found for this document.

You tried to start up an application by opening a document that was created using that application.

The Finder is unable to associate the document you tried to open with the application used to create the document. Click OK. Then open the application by double-clicking its icon.

Completely replace the contents of "DESTINAT.DISK" with the contents of "SOURCE.DISK"?

When copying the content of the source disk to the destination disk, the Finder will erase everything on the destination disk and replace it with everything on the source disk. If that's what you intended, click OK. Otherwise click Cancel.

Disk icons can't be dragged with file or folder icons for this operation.

When dragging icons into the Trash or when dragging icons to copy them, you tried to drag a disk icon and a file or folder icon at the same time. To perform these operations, you can drag either disk icons or file and folder icons, but not both simultaneously.

Disks can be dragged only onto other disks.

You tried to drag a disk icon onto some other type of icon or into some other type of window. Disk icons can be dragged only onto other disk icons, into disk windows, or into the Trash.

To copy a disk, drag the source disk icon onto the destination disk icon or into the destination disk window.

Filenames must begin with a letter.

When naming a duplicate file, you began the name with a character other than a letter.

Delete the first character or type a new name.

5.25-inch disk drive icons can't be moved into a window or onto another icon.

You tried to drag a 5.25-inch disk drive icon into a window or onto another icon. In order to drag the disk icon that's inside the disk drive icon, you must open the drive icon by double-clicking it, or by selecting it and choosing Open from the File menu.

Initialization failed.

Your disk is probably damaged. Click OK. Then insert another disk and try again. If you want to find out whether the disk is damaged, use the Verify a Disk command in the System Utilities. For more information see "Verifying That a Disk Is Readable" in Chapter 11.

Initialization failed. This disk is write protected.

You tried to initialize a write-protected disk. If appropriate, remove the disk and remove the write protection; then insert the disk and click Try Again. Otherwise click Cancel.

When a disk is write protected, you can't make any changes to it. If a 3.5-inch disk is write protected, you can remove the write protection by sliding the write-protect tab to cover the square opening in the corner of the disk. If a 5.25-inch disk is write protected, you can remove the write protection by removing the disk's adhesive write-protect label from the notch on the side of the disk.

If the manufacturer write protected a disk, there was probably a good reason for it; you should consider initializing a different disk.

Items in the Trash can't be opened. Please drag the items back into a disk or folder window.

You tried to open a file or folder that's in the Trash window. Before you can open a file or folder, it must be in a folder or disk window.

Items on the desktop and in the Trash can't be duplicated. Please drag the items back into a disk or folder window.

You tried to duplicate files or folders in the Trash or on the desktop. Before duplicating these items, you must move them back into a disk or folder window.

Memory is full. Can't complete this operation.

There is no more available memory in the Apple IIGS. Click Cancel. Then close some windows and try the operation again. If you get the same message again, restart the computer.

System Error! Can't complete this operation.

The Finder encountered an error that prohibits it from completing this operation. Click Cancel, then try the operation again. If you still get the System Error message, restart the Finder. If you continue to get the same error, report it to your authorized Apple dealer.

If you received this message while trying to move or copy items onto a RAM disk or duplicate items on a RAM disk, it may be because the minimum and maximum RAM disk sizes are not set to the same value. To solve the problem, use the Control Panel to change the minimum and maximum settings for RAM disk size. Then restart your computer and try the operation again. For information on using the Control Panel to set the RAM disk size, refer to the *Apple IIGS Owner's Guide*.

That name is already taken. Please use a different name.

The Finder doesn't permit two icons in the same folder or disk directory to have the same name. Assign the icon a different name.

The application "APPNAME" can't be found for this document.

The Finder is unable to locate the application used to create the document you're trying to open. Check to make sure that you have inserted the disk that contains the application. If the application is on a 5.25-inch disk, make sure the disk drive door is closed. Then click Try Again. If you know you don't have the application on a disk, or if you have moved or renamed the application, click Cancel.

The disk directory is full. Can't complete this operation.

You already have a total of 51 files and folders in the disk directory, the maximum number that ProDOS allows. Move some files into folders, delete extraneous files, or copy some files and folders onto another disk and then remove them from this disk.

The disk "DISKNAME" is write protected.

You are trying to perform an operation on a disk that is write protected. If appropriate, remove the disk, remove the write protection, insert the disk, and click Try Again. Otherwise click Cancel.

When a disk is write protected, you can't make any changes to it. If a 3.5-inch disk is write protected, you can remove the write protection by sliding the write-protect tab to cover the square opening in the corner of the disk. If a 5.25-inch disk is write protected, you can remove the write protection by removing the disk's adhesive write-protect label from the notch on the side of the disk.

The disk is full. Can't complete this operation.

You have run out of room on this disk. View the directory by icon to see how much space is available. Then view the directory by name to see how much room each file on the disk occupies. Use the Remove command to delete files you no longer need, or copy some files to another disk and then remove them from the full disk. Note that folders are always listed as having a size of 0.5K, no matter how many items they contain.

The file/folder "FILENAME" already exists and is locked (or contains items that are locked). Replace it anyway?

You tried to move or copy an item that has the same name as one of the following items in the destination folder or destination disk directory: a locked file, a locked folder, or an unlocked folder that contains a locked item. If you want to replace the item in the destination folder or disk, click Yes. If you don't want to replace the item but want the Finder to continue the moving or copying procedure, click No. If you want to stop the operation, click Cancel.

The file/folder "FILENAME" can't replace the folder that contains it.

You have nested a file or folder inside another folder and have given both items the same name. Then you tried to move the nested item into the directory window containing the outer folder.

For example, suppose you created a folder called MEMBERSHIP and placed a folder also called MEMBERSHIP inside the first folder. Then you tried to move the nested MEMBERSHIP folder into the window that contains the outer MEMBERSHIP folder.

If you're moving or copying several items, click Skip File to go on to the next item. Otherwise click Cancel.

The file/folder "FILENAME" is copy protected and can't be copied.

You have tried to copy or duplicate a file that is copy protected. When a file is copy protected, it cannot be copied. If you're copying or duplicating several files, click Skip File to go on to the next file. Otherwise click Cancel.

The file/folder "FILENAME" is locked (or contains items that are locked). Remove it anyway?

You have tried to remove or throw away a file or a folder that is locked or a folder that contains locked items. If that's what you intended, click Yes. If you don't want to remove the item but want to continue removing other selected items, click No. If you want to stop the operation, click Cancel.

The filename "ANYNAME" is already used.

You have chosen a name for a duplicate file or folder that has already been used for an item in the destination folder or disk directory. To choose another name, simply specify the new name and click OK. To skip this item and duplicate the next item you selected, click Skip File. To cancel the duplicating operation, click Cancel.

The folder "FOLDERNAME" can't be moved into itself or into one of its own folders.

You have nested a folder inside another folder and then attempted to copy the outer folder into the nested folder.

For example, you created a folder called YEARLY.BILLS and placed a folder called JANUARY.BILLS inside that folder. Then you tried to drag the YEARLY.BILLS folder icon on top of the JANUARY.BILLS folder icon or into the JANUARY.BILLS window. Or you tried to drag the YEARLY.BILLS folder icon into the YEARLY.BILLS window.

If you're moving or copying several items, click Skip File to go on to the next item. Otherwise click Cancel.

The folder "FOLDERNAME" is copy protected and can't be accessed. Can't complete this operation.

You have tried to copy or duplicate a folder that is copy protected. When a folder is copy protected, it cannot be copied.

The name you typed is not valid. The first character in the name must be a letter.

When naming a file, folder, or disk, you began the name with a character other than a letter.

Delete the first character or type a new name.

The pathname DISKNAME/FOLDERNAME/FILENAME contains more than 64 characters. Can't complete this operation.

When dragging a file or folder into another folder or onto another disk, you created a pathname that exceeds 64 characters.

Suppose, for example, that you have a disk called HOUSE.PROJ-ECTS. On that disk you have a folder called FLOOR.COVERINGS that's inside a folder called LIVINGROOM. On another disk you have a folder called PRICELIST that's inside a folder called MAN-UFACTURERS. If you try to copy the MANUFACTURERS folder inside the FLOOR.COVERINGS folder, the pathname will be /HOUSE.PROJECTS/LIVINGROOM/FLOOR.COVERINGS/MANU-FACTURERS/PRICELIST, which has 66 characters—two over the maximum.

To avoid this message, shorten one of the names in the pathname or reduce the number of levels of folders.

The pathname is too long to complete the operation.

The Finder cannot open a folder whose pathname has more than 48 characters. Shorten one of the names in the pathname or use fewer levels of folders.

The Trash icon can't be moved into a window or onto another icon.

You tried to drag the Trash icon on top of another icon or into a window. If you want to move an icon that's in the Trash into a folder or onto a disk, open the Trash icon and drag the icon you want to move out of the Trash window and on top of the icon or into the window where it belongs.

The two disks are different sizes so the contents of "SOURCE.DISK" will be placed in a folder on "DESTINAT.DISK."

When copying the content of the source disk to the destination disk, the Finder will copy everything on the source disk into a folder on the destination disk. If that's what you intended, click OK. Otherwise click Cancel.

There isn't enough room on "DESTINAT.DISK" to copy the contents of "SOURCE.DISK."

There isn't enough room on the destination disk to copy everything on the source disk. You can try copying the disk again using a different destination disk, or you can drag only selected files and folders onto the destination disk.

These items are from different disks. Please move them separately.

You selected files and folders that are not stored on the same disk and then tried to drag them. Deselect all icons. Then select only icons stored on the same disk.

This disk is unreadable. Do you want to initialize it as a ProDOS disk?

You have inserted a blank disk that has never been initialized. To initialize the disk as a ProDOS disk, click Initialize. Otherwise click Eject. If you decide not to initialize a 5.25-inch disk, open the drive door and remove the disk after you have clicked Eject.

This disk was initialized for another operating system and can't be read by ProDOS. Do you want to initialize it as a ProDOS disk?

The disk you have inserted was initialized for the DOS 3.3, Pascal, or Macintosh operating system.

If you want to erase everything on the disk and initialize it as a ProDOS disk, click Initialize. If you don't want to erase everything on the disk or if you want to initialize the disk so it can be used with an operating system other than ProDOS, click Eject. If you decide not to initialize a 5.25-inch disk, open the drive door and remove the disk after you have clicked Eject.

You are attempting to replace a file with a folder or vice versa. Should it be replaced?

When copying or moving items, you have instructed the Finder to replace an item on the destination disk with an item on the source disk that has the same name. But one of the items is a file and the other is a folder.

If you want to replace the item on the destination disk, click Yes.
If you want to leave the original item on the destination disk and
continue the copying procedure, click No. If you want to discontinue the copying operation, click Cancel.

Part 2

The System Utilities

How to use this guide to learn the System Utilities

If you've never used the system disk before...	read Chapter 8, which explains how to get started and how to make a working copy of the system disk.
If you're new to computers...	read Chapter 9, a hands-on introduction to the System Utilities.
If you want an overview of how the System Utilities work...	read Chapter 10.
If you want to know how to accomplish a specific task...	refer to the step-by-step instructions in Chapters 11 through 13.
If you have a problem...	turn to Chapter 14.

Chapter 8

About the System Utilities

This part of the *Apple IIGS System Disk User's Guide* explains how to use the Program Launcher, System Utilities, and FastCopy.

☐ The Program Launcher is a mouse-based application that shows you what's on a disk and allows you to start applications very easily. It's the first thing you see when you start up the system disk with a 256K system. (If you have a memory expansion card, you will see the Finder desktop instead of the Program Launcher. For instructions on using the Finder, turn to Part 1 of this guide.)

☐ System Utilities is a program that lets you accomplish a variety of disk housekeeping chores like copying disks, checking to see what files are on a disk, copying files, deleting files, renaming files—the same kinds of things you can do with the Finder. Unlike the Finder, which works only with ProDOS disks and files, you can use the System Utilities with disks that use any of the Apple II operating systems: ProDOS, DOS 3.3, and Pascal. Also unlike the Finder, the System Utilities do not recognize mouse moves. You control the utilities using keyboard commands.

☐ FastCopy is a special utility for copying disks. You'll use it later in this chapter to make a copy of the system disk.

Starting up

Put the system disk in your startup drive and turn on the power. After a few seconds, you see a screen similar to the one shown in Figure 8-1

Click here to see the contents of another disk

Click here to open the selected application or folder

Dimmed file (can't be opened)

Application

Click here to close the subdirectory you're looking at

Subdirectory

Click here to leave the Program Launcher
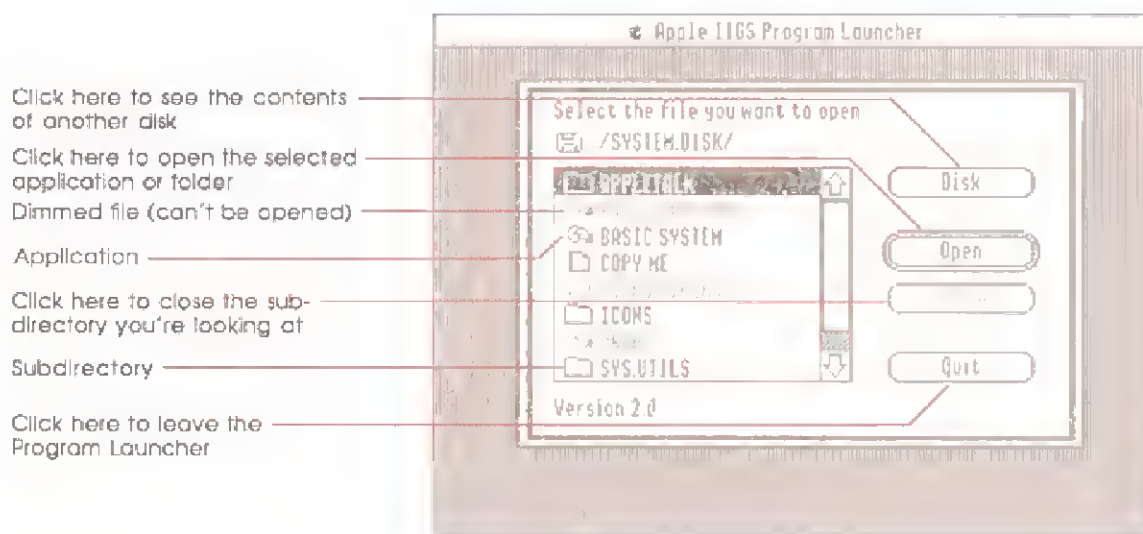
Figure 8-1
The Program Launcher

This is the Program Launcher. It shows you what's on your disk and allows you to start applications easily.

The Program Launcher

This section explains how the Program Launcher works. After this overview, you'll learn how to use the Program Launcher to launch the FastCopy application on the system disk.

The following discussion assumes that you know how to use the mouse. If you do not, read about using the mouse in the *Apple IIGS Owner's Guide* and practice using the mouse with *Your Tour of the Apple IIGS*, the training disk that came with your computer.

Starting an application

To start an application using the Program Launcher, select the application you want and click Open. (You can also open an application by clicking twice—known as **double-clicking**—on the name.) If you don't see the application you want to open, click the arrows in the scroll bar until the name of the file you want comes into view.

If you don't have a mouse, or if you prefer controlling the program with keyboard commands, select the file you want to work on by typing the first letter of the file name. If more than one file starts with that letter, press the Down Arrow key until the correct file is highlighted. When the correct file is highlighted, press Return to open it. To see other files on the disk, you can press the Up Arrow key or the Down Arrow key instead of clicking the arrows on the scroll bar.

Opening a subdirectory

A **subdirectory** is like a file folder containing related files. It allows you to store documents together on a disk. If the application you want to open is in a subdirectory, select the subdirectory name and click Open. (You can also open a subdirectory by double-clicking the name, or by pressing Down Arrow until the name is highlighted and then pressing Return.) When you open a subdirectory, you see a list of what's in it; you can then open one of the subdirectories or applications in that subdirectory by selecting its name and clicking Open. To close a subdirectory, click the Close button; you'll return to the previous directory. You can also close a subdirectory by pressing the Esc (Escape) key.

If a name or command is dimmed, it means you can't use it. For example, document names are dimmed because you cannot open documents from the Program Launcher. You must open documents from within the application you used to create them.

Opening another disk

If the application you want to open is on another disk, click the Disk button. When you click the Disk button, the Program Launcher first checks the current drive to see whether you've inserted a different disk. If you haven't, it goes on to the next disk drive connected to your computer and displays the contents of the disk it finds there.

You can also tell the Program Launcher to display the contents of a different disk by pressing Tab.

Getting in and out of the Program Launcher

When you quit a ProDOS-based application, you return to the Program Launcher. When you quit a Pascal- or DOS 3.3–based application, you don't. To get to the Program Launcher after using a Pascal- or DOS 3.3–based application, you must restart the system disk.

To leave the Program Launcher without opening an application, click the Quit button and follow the instructions on the screen. When you have chosen Quit, press Up Arrow or Down Arrow—not the mouse—to select what you want to do next, and then press Return.

You can also quit by holding down the Apple key while you press the period key.

Using FastCopy

Before you go any further, it's a good idea to make a working copy of your *Apple IIGS System Disk*. Once you've copied the disk, put the original in a safe place so that you'll be able to copy it again if something should happen to your working copy.

1. Open the folder called SYS.UTILS.

2. Open the application called FASTCOPY.SYSTEM.

3. After a few seconds, you see the FastCopy title screen and then the FastCopy menu (see Figure 8-2).

   ❖ *RAM disk users:* Before the FastCopy menu appears, you will be asked whether it's OK for FastCopy to erase the contents of your RAM disk. If you don't mind losing what's stored on your RAM disk, press Right Arrow to highlight Yes; then press Return. If you don't want to lose the information on your RAM disk, press Return; FastCopy will use only the unused portion of your RAM disk.

Figure 8-2
The FastCopy menu

Copying disks

1. Press Return to select Copy Disks.

❖ *Need help?* Instructions in the lower-left corner of the screen tell you what to do next. For additional information, press Apple-? (When you are asked in this manual to press two or more keys whose names are joined by hyphens, you should press the keys simultaneously and then release them.)

2. If asked, select the type of drive you want to use for the copy. (See Figure 8-3.) Highlight the option you want by pressing the Left Arrow key or the Right Arrow key, then press Return.

Highlighted number indicates the type of disk you will copy
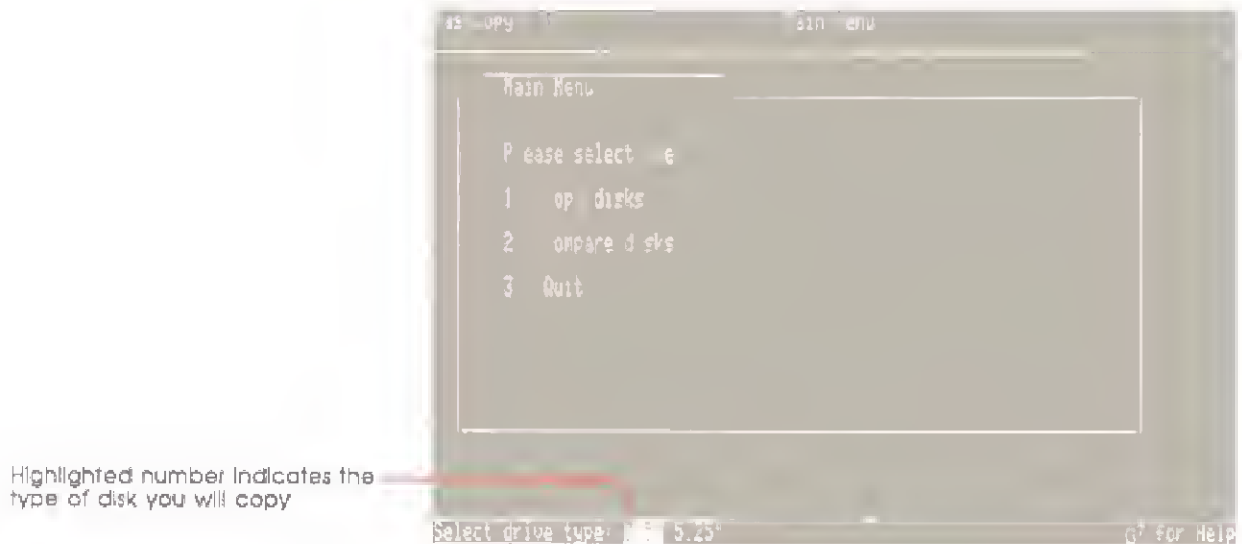
Figure 8-3
The Copy Disks screen

☐ If you select 3.5, the program ejects any 3.5-inch disks in the 3.5-inch disk drives connected to your system so that you can insert the disks you want to copy from and to.

☐ If you select 5.25, you are asked whether you have one or two 5.25-inch drives. Highlight the option you want by pressing Left Arrow or Right Arrow, then press Return. (Once you've answered this question, the program remembers your response and doesn't ask again until you restart the system disk.)

3. A message appears at the bottom of the screen asking you to insert your **source** disk—the disk you want to copy. **Write protect** the system disk and insert it in any of your 3.5-inch disk drives. (With 5.25-inch disks, you must put the source disk in your startup drive and press Return.)

4. If you are using two drives, a message at the bottom of the screen tells you to insert your destination disk. Insert a blank disk, or a disk you don't mind erasing, and press Return.

5. If the disk is blank, you see a message asking whether you want to format the disk. Press Right Arrow to highlight Yes, then press Return. If the disk has information on it, you are asked whether it's OK to destroy that data.

6. If you are using one drive, swap the source disk for the destination disk when prompted by messages on the screen.

❖ *How it works:* FastCopy **reads** as much information from the source disk as it can fit in memory. As it is reading information from the disk, you see a message indicating what percentage of the source disk has been read. (If you have a memory expansion card installed in your computer, the program is able to read a lot more information at one time than if you don't.) When FastCopy has read as much information as your computer's memory can handle, it **writes** the information to the destination disk. As the program is writing information to the destination disk, you see a message indicating what percentage of the information has been written to the destination disk. If you have two drives of the same type, the reading and writing proceed without any intervention on your part. If you have only one drive, you may need to swap the source disk for the destination disk several times.

7. When FastCopy has finished writing all information to the destination disk, you see the message "Copy complete." Press Return to go back to the FastCopy menu.

❖ *Multiple copies:* Depending on the amount of data on the source disk and the amount of memory available in your system, all the data to be copied may fit in memory at once. In this case, after making one copy, the program gives you the option of making additional copies without rereading the source. This option is convenient if you need to make several copies of the same disk. It's especially convenient with a one-drive system because it allows you to make additional copies without reinserting the source disk.

Comparing disks

Comparing disks is a good way to verify that a backup disk matches the source. Use the Compare Disks option now to check your copy of the system disk against the source.

1. From the FastCopy menu, press Up Arrow or Down Arrow to highlight Compare Disks, then press Return.

2. Select the drive type.

3. If asked, select the number of drives. Press Left Arrow or Right Arrow to highlight the option you want.

4. Write protect and insert the original system disk, then press Return.

   You see a message indicating what percentage of the source disk has been read.

5. Insert the copy of the system disk when the message at the bottom of the screen tells you to insert the destination disk. Then press Return.

   You see a message indicating what percentage of the destination disk has been compared.

6. If you're using a one-drive system, swap the source disk for the destination disk when prompted by messages on the screen.

7. When the disk comparison is complete, you see the message "Disks match" or "Disks don't match." If your disks match, put the original system disk in a safe place and use the copy as your working system disk. If the disks don't match, try copying the disk again.

8. Press Return to go back to the FastCopy menu.

9. Press Up Arrow or Down Arrow to highlight Quit. Then press Return. Confirm that you want to quit by pressing Right Arrow. Then press Return again. After a few seconds, you should find yourself back at the Program Launcher.

About System Utilities

The rest of Part 2 explains how to use the System Utilities on your system disk. Before you turn to Chapter 9 for a hands-on introduction to the utilities or put the book aside to master the utilities on your own, you need to know how to specify the location of the disk or **file** you want to copy, delete, rename, or otherwise manipulate.

There are two ways to specify the location of a disk or file: by slot and drive number or by ProDOS pathname.

❖ *In general:* Use the slot-and-drive method when you know the location of a disk but don't know its name. Use the ProDOS pathname method if you need to work with files in subdirectories, or if you know the disk name but don't know which drive the disk is in.

File is a generic term for a document, a program, or a subdirectory—anything that you save by name on a disk.

Slot and drive

If your disk drive is connected through a card in a slot, you won't have any difficulty providing the slot number. If your drive is connected to the disk drive port, you need to know which slot number corresponds to the disk drive port. (Ports are designed to imitate slots so that applications designed for models of the Apple II with slots will run on models of the Apple II with ports.) See Table 8-1 for the slot equivalents of your disk drives.

If you have more than one drive connected to a card, the drive connected directly to the card is drive 1; the drive connected to drive 1 is drive 2. If your drives are connected to the disk drive port, the drive connected to the port is drive 1 and the drive connected to drive 1 is drive 2. If you have both 3.5-inch drives and 5.25-inch drives daisy-chained to the disk drive port, the 5.25-inch drives should be at the end of the chain. The 5.25-inch drive nearest the port is drive 1. The next in line is drive 2.

❖ *More than two "slot 5" devices:* Only two devices can be identified with each slot, so if you connect more than two devices to slot 5, the third and fourth 3.5-inch drives behave as if they are connected to a card in slot 2. Think of slot 2 as the overflow slot for "slot 5" devices.

Table 8-1
Apple IIGS slot equivalents

Disk drive	Slot number	Drive number
First 3.5	5	1
Second 3.5	5	2
Third 3.5	2	1
Fourth 3.5	2	2
First 5.25	6	1
Second 5.25	6	2

Important   A memory expansion card used as a RAM disk also appears to be in slot 5. If you have used the Control Panel to designate your RAM disk as your startup drive, its location is slot 5, drive 1. If a 3.5-inch drive is designated as your startup drive, the RAM disk's location is slot 5, drive 2. In either case, the second 3.5-inch drive's location is slot 2, drive 1.

ProDOS Pathname

Another way of specifying the location of a disk or file is by its pathname. A pathname provides a trail of names leading the computer first to a disk, then to a subdirectory, if any, on that disk, and eventually to a file in that subdirectory. A pathname begins with a slash, and every part of the pathname is separated by a slash. For example, the pathname for a file called PELE in a subdirectory called SOCCER on a disk called SPORTS would look like this: /SPORTS/SOCCER/PELE.

If you don't know about subdirectories already, use the slot-and-drive method for specifying the location of disks and files. (You'll learn how to create subdirectories in Chapter 9.) Once you start using subdirectories, you'll need to use the ProDOS pathname to specify the subdirectory containing the files you want to work on.

Now what?

At this point you can proceed to Chapter 9 for a hands-on introduction to System Utilities, you can explore the utilities on your own, or you can take a break.

If you decide to explore the utilities on your own and find that you need help, turn to Chapters 11, 12, and 13 for reference. Topics there are arranged in their order of appearance on the Main Menu of the utilities and include step-by-step directions.

Chapter 9

An Introduction to Utilities

As the name implies, the utilities are useful programs. In this chapter you'll see how they can come in handy, and you'll get a step-by-step introduction to some of their most common uses.

The idea of utilities

As you use your computer, you save a lot of information on disks. Before you know it, you could have shoe boxes full of disks and no idea where to find the information you want.

You need some way to organize the information on those disks— a way to find out what's on a particular disk, a way to delete documents, a way to protect crucial documents from accidental erasure. You can do all these things and more with the **utilities** on the Apple IIGS System Disk.

The utilities are a little different from other applications. You don't use the utilities to create a document; you use them to rearrange documents created with other applications.

❖ *By the way:* In the utilities, you will see the term *volume* where you might expect to see the word *disk*. A volume is a storage area for data. When you're working with 5.25-inch and 3.5-inch disks, you have only one volume per disk, so the terms are synonymous—the disk name is the volume name. With larger storage devices there can be many volumes on one disk; that's why the utilities sometimes make a distinction between disks and volumes.

What follows is a brief outline of the ways the utilities can help you manage disks and documents.

Utilities are programs that help you work with disks and documents.

Figure 9-1
Boxes of disks

Working with disks

When you're working with disks, you can use the utilities to

☐ show you what documents and applications are on a particular disk (known in the utilities as *cataloging a disk*)
☐ make a copy of a whole disk (*duplicating a disk*)
☐ prepare a disk to store information (*formatting a disk*)

- □ make sure that a disk is in good shape (*verifying a disk*)
- □ give a formatted disk a new name without disturbing its contents (*renaming a volume*)
- □ tell you the names of the disks in your disk drives (*listing volumes*)

Working with files

A **file** is any body of information stored by name on a disk. A document, for instance, is a file. When preserving and organizing your files, you can use the utilities to

- □ make a copy of one or more files (*copying files*)
- □ delete files you no longer need (*deleting files*)
- □ give new names to existing files (*renaming files*)
- □ protect files from accidental changes (*locking files*)
- □ remove protection, allowing changes to be made to files (*unlocking files*)
- □ create a folder to contain a group of related files and a list of those files (*creating a subdirectory*)
- □ set up a shortcut to a particular disk or subdirectory, for faster access and less typing (*setting a prefix*)

Many applications perform similar services, at least when you're working with the files they helped you create. If the application you're using has some utilities built in, you won't need to use the utilities on the system disk very often. If an application does not let you format a disk, copy a file, or create a subdirectory, though, you can always turn to the system disk.

A hands-on tutorial

The best way to learn about the utilities is to use them. In this section, you'll learn how to format a blank disk to receive information, create a folder to hold new files, copy a file into the folder, and then check to make sure the copy arrived.

For this tutorial, you need

☐ your working copy of the system disk

☐ a blank disk the same size as your system disk

To do this tutorial, you do not need a second disk drive, though if you have one, it will occasionally come in handy.

Formatting a disk

Before a disk can receive any files, it must be **formatted**, or divided into sections where information can be stored. The process of formatting erases any information on the disk, so you should always make sure you are using a brand-new disk or one that contains nothing of value.

1. With your working copy of the system disk in the startup drive, turn on the computer and monitor.

You see a list of the files on the system disk. (See Figure 9-2.)
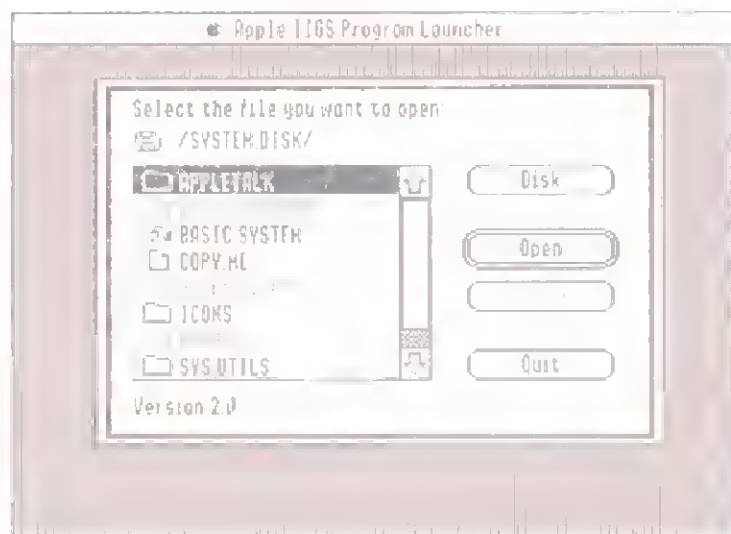
Figure 9-2
Files on the system disk

If you don't see this screen after ten or fifteen seconds, make sure your working copy of the system disk is in the startup drive, then press Apple-Control-Reset to start the computer again. (Reset is the key marked with a triangle.) If that doesn't work, check all your connections, make sure the monitor is plugged in and turned on, and try again. If you still don't see the menu, something may have gone wrong when you were making the copy; try copying again with a different disk.

2. Open the subdirectory called SYS.UTILS.

3. Open the application called SYSUTIL.SYSTEM.

In a few moments, you see a screen similar to Figure 9-3, the Main Menu of the utilities.
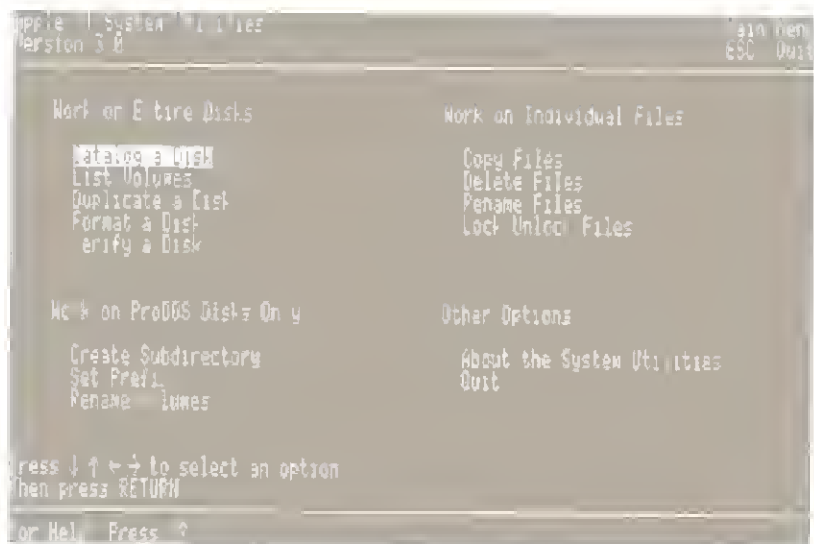
Figure 9-3
The Main Menu of the utilities

4. Press Down Arrow to highlight the Format a Disk option.

The arrow keys move the highlighting left and right, up and down.

5. Press Return to select the highlighted option.

A message appears asking where the disk is. The Slot and Drive option is highlighted, indicating that the computer needs you to identify the disk's location by slot and drive.

6. To accept this method, press Return.

You see the standard (most common) slot number and drive number, shown in Figure 9-4. (These are the numbers the computer will use if you don't type anything else; such responses are sometimes known as **defaults**.)

A **default** is the suggested or standard response, which the computer will use if you do not type something else.

Figure 9-4
The Format a Disk screen

You will be using the startup drive to format the disk. The startup drive is slot 5, drive 1 for 3.5-inch disks; slot 6, drive 1 for 5.25-inch disks.

7. **To accept the default slot and drive, press Return. To change the slot and drive numbers, press Left Arrow or Right Arrow to highlight the number; then type the new number. When the information is correct, press Return.**

A message appears asking which **operating system** to use in formatting the disk.

You must format disks with the same operating system your application uses, or you won't be able to save files on those disks. The utilities rely on the **ProDOS** operating system. Because you're going to copy one of the files from the utilities, you need to use ProDOS to format the disk that the file will be copied onto.

You'll learn more about choosing the correct operating system in "Choosing an Operating System" in Chapter 10.

8. **To use ProDOS in formatting the disk, press Return.**

Now you need to name the disk you're formatting. Once formatted, the disk is known as a *volume*; it is like a blank notebook, ready to receive data.

9. **Press Control-X to delete the suggested name for your new disk, then type TRYOUT.**

That's a logical name because you're trying out the utilities.

If you need to make a correction, press Left Arrow or Right Arrow to move the **cursor** under a character. To get rid of the character to the left of the cursor, use the Delete key. To insert characters to the left of the cursor, just start typing.

10. **When you've typed the name just as you want it, press Return.**

You're asked to place the destination disk in the startup drive. The destination disk is the one you intend to format.

11. **Remove the working copy of the system disk and replace it with a blank disk. Then press Return.**

To remove a disk, press the button on the front of your disk drive in the upper-right corner.

This step prevents you from accidentally reformatting the system disk. If you leave the system disk in the drive, you see a message asking whether you really want to destroy the data on it. Just highlight No and press Return to save your original disk.

The utilities format your blank disk, and after a few moments you see the message "Formatting... Done!"

You've prepared this disk to receive and store data.

12. To return to the Main Menu, press Return.

Finding out what's on a disk

Formatting a disk gives it a name and a **directory**— an empty list prepared to record the names of any files you save on the disk. The directory is sometimes known as a *catalog*. Cataloging a disk shows you the name of the disk, the operating system used to format it, and the names of any files stored on it. Now you'll catalog the disk you just formatted to make sure the formatting went well.

1. In the Main Menu, highlight Catalog a Disk and press Return.

You see a screen similar to the one shown in Figure 9-5.
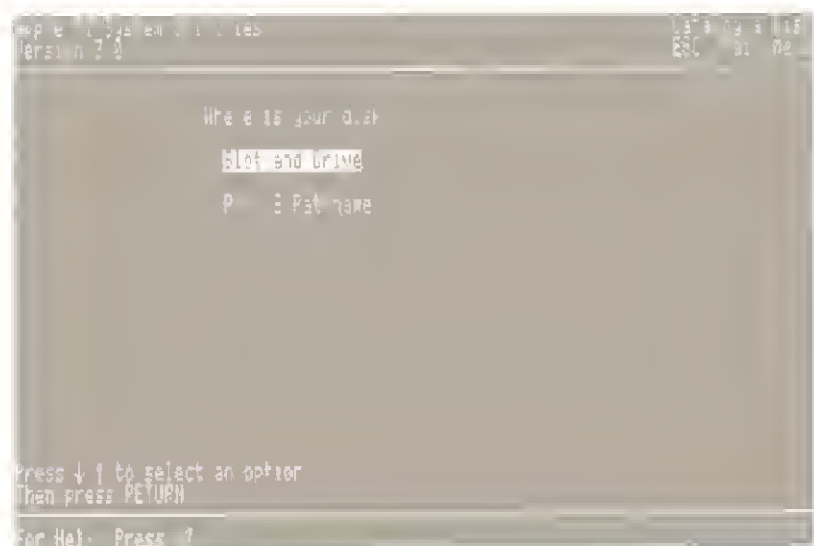
Figure 9-5
The Catalog a Disk screen

Before you can tell the computer where the disk to be cataloged will be, you must pick the method by which you will identify its location. You can identify the location physically (by slot and drive) or you can give the disk's name. For now, it's easiest to use the slot-and-drive method.

2. To choose the slot-and-drive method, press Return.

You now have a chance to change the default entries for slot and drive. (See Figure 9-6.)
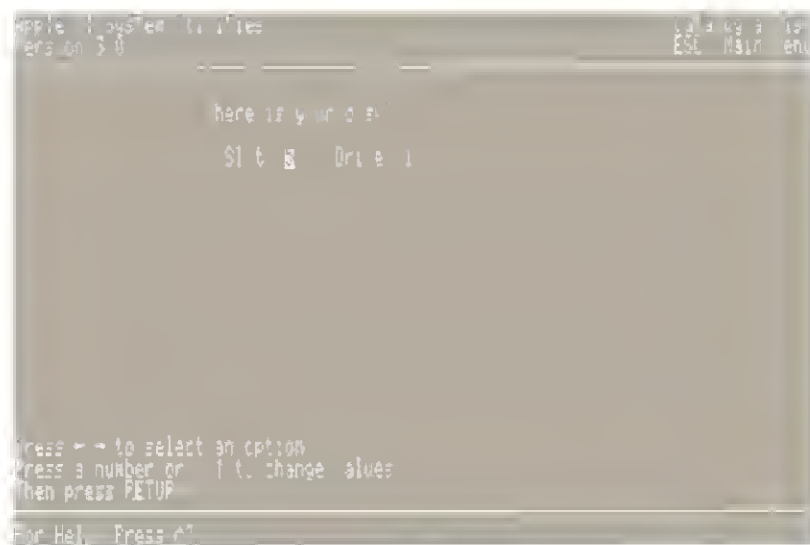
Figure 9-6
Default slot and drive numbers

Your newly formatted 3.5-inch disk is in the startup drive. Make sure the message contains the correct slot and drive numbers. If the slot number is incorrect, type the correct number. If the drive number is incorrect, press Right Arrow to move the highlighting over to Drive; then type the correct number.

3. When you have entered the slot and drive numbers for the disk you want cataloged, press Return.

The directory appears for your disk named TRYOUT. (See Figure 9-7.)

Operating system used to
format the disk ────────────

Amount of room left on the disk
for storing files ────────────

Amount of room used to set up
the directory, measured in blocks
of 512 **bytes** ────────────

Figure 9-7
The disk directory

You have a directory—and plenty of room to store files on the disk. The formatting was successful.

4. To return to the Main Menu, press Return.

You're now ready to create a subdirectory on this disk and copy a file into it.

Creating a subdirectory

At this point, you could stop using the utilities, start using an application to create documents, and save them on your formatted disk. But you may want to consider setting up a **subdirectory** on your newly formatted disk.

Right now, with no files on the disk, the directory is easy to read. And with only a few documents saved on the disk, you'll be able to spot the one you need right away. (See Figure 9-8.)
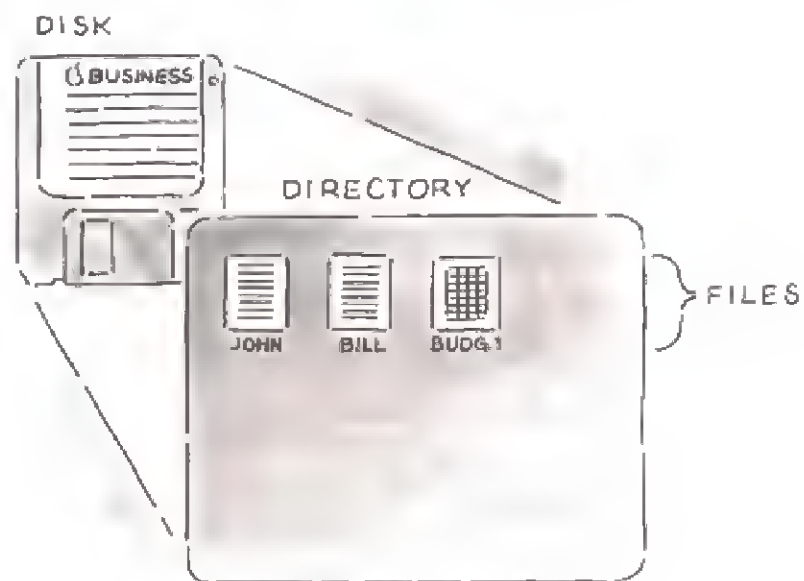
But as you do more work, adding more and more files to the disk, it takes more time to search through the directory for a particular file. (See Figure 9-9.)
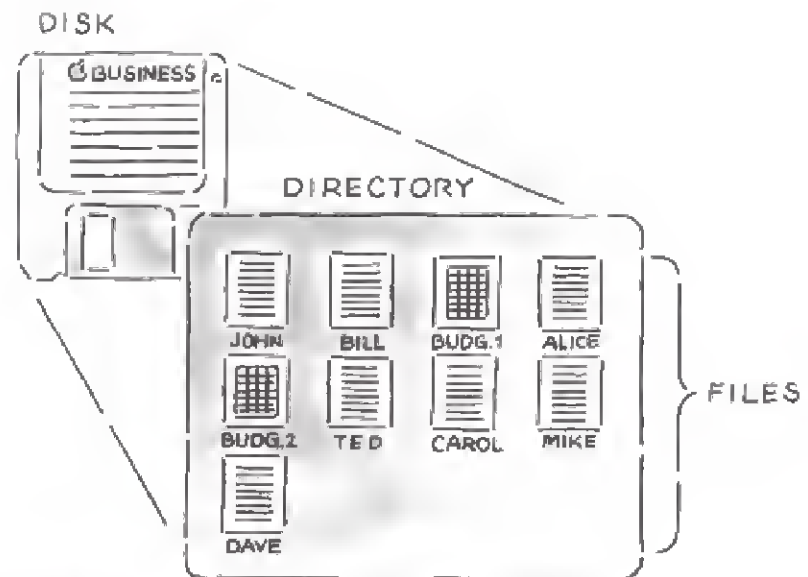
DISK

Figure 9-9
A lot of letters on a disk

To locate files more easily, you may want to keep related files together in subdirectories, the electronic equivalent of large file folders. A subdirectory contains a group of individual files and a list of those files—sort of a minidirectory.

The first step in organizing is deciding on a likely category for a subdirectory. For example, if your disk were filling up with letters, among other documents, you might want to create a subdirectory called LETTERS and copy all your correspondence into that subdirectory. Your main directory would look a lot less cluttered. (See Figure 9-10.)
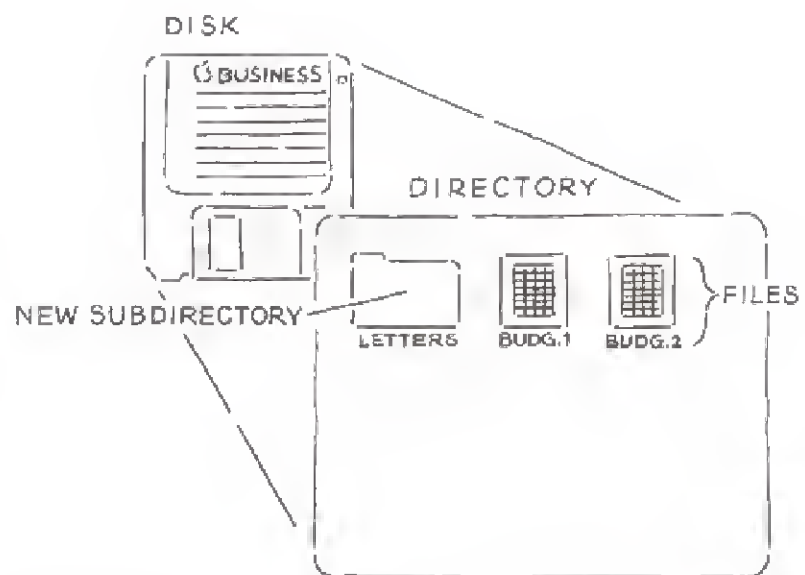
Figure 9-10
A disk with a subdirectory for letters

Only when you open that subdirectory will you see your letters. (See Figure 9-11.)
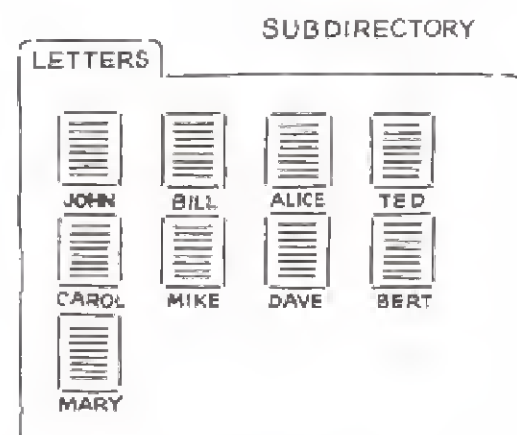
Figure 9-11
Inside the subdirectory called LETTERS

You must create the subdirectory before you can put any files into it. Follow these steps to create a subdirectory on the TRYOUT disk:

1. **In the Main Menu, choose Create Subdirectory and press Return.**

   If you're starting up again, make sure that the working copy of the system disk is in your startup drive and that you have your formatted TRYOUT disk at hand; then turn on the power.

   ❖ *By the way:* This option is listed under the heading "Work on ProDOS Disks Only." That's because you can create subdirectories only on disks formatted with the ProDOS operating system. Earlier operating systems, such as DOS 3.3 and Pascal, were designed for 5.25-inch disks, which can hold only 143K of data; such disks are too small for subdirectories to be necessary. ProDOS was developed so you can work with larger disks; for instance, a 3.5-inch disk can hold about 800K of data—a lot more files. To help you keep track of all these files, ProDOS lets you create subdirectories.

   A message asks how you want to specify the location of your disk.

2. **With the Slot and Drive option highlighted, press Return.**

   You're choosing to specify the slot and drive number of the disk on which you want to create a subdirectory.

3. **Type the number of the slot and drive that will contain the TRYOUT disk, then press Return.**

   If you're using the startup drive, replace the working copy of the system disk with the TRYOUT disk and specify its slot and drive number. If you're using a second 3.5-inch drive, make sure the TRYOUT disk is there, then specify the slot and drive number.

4. **Name the new subdirectory LETTERS.**

   Simply type the name and press Return.

   In a few seconds, you see the message "Create complete" on the bottom line of the display. The subdirectory has been created

5. To return to the Main Menu, press Return.

6. To see what the directory looks like now, choose Catalog a Disk and press Return.

7. Press Return to accept the slot-and-drive method of specifying the location of the TRYOUT disk.

8. Specify the location of the TRYOUT disk and press Return.

For information on location, see "About System Utilities" in Chapter 8.

The new subdirectory shows up at the top of the directory. (See Figure 9-12.)

Figure 9-12
The subdirectory appears in the directory

The subdirectory is now ready to receive files.

9. Press Return to return to the Main Menu.

Copying a file

A backup copy of a file or disk is one you keep in a safe place, to be used if you happen to lose or ruin your original.

To neaten up the disk, or to make a **backup copy** of an important file, you need to use the utilities to copy a file from one disk to another. If you want to place the copy in a subdirectory, you can do so as part of the copying procedure.

In this section of the tutorial, you'll copy the file COPY.ME from your working copy of the system disk into the subdirectory LETTERS on your new disk TRYOUT.

1. **If you have only one drive, remove TRYOUT and replace it with the working copy of the system disk. If you have two drives, make sure the working copy of the system disk is in the startup drive and the TRYOUT disk is in the other drive.**

   The working copy of the system disk is the source of your files, so it must be the first disk the utilities examine.

2. **In the Main Menu, use the arrow keys to highlight the Copy Files option; then press Return.**

   A message asks which method you want to use to identify the source disk (the disk that will be the source of your files). For now, continue to use slot and drive numbers.

3. **With the highlighting still on Slot and Drive, press Return.**

   You are choosing to identify the source disk by its physical location. You see this message:

   ```
   Where is your source disk?
   Slot 5 Drive 1
   ```

4. Press Return to accept the default slot and drive numbers, or type new numbers and press Return.

A message asks which method you want to use to identify the location of the destination disk (the disk onto which you are going to copy these files). In order to put the files into your new subdirectory, you need to provide a more specific location than the slot and drive. You need to name the disk and the subdirectory. That's what the ProDOS **pathname** allows.

5. Move the highlighting to ProDOS Pathname and press Return.

You see the message shown in Figure 9-13.
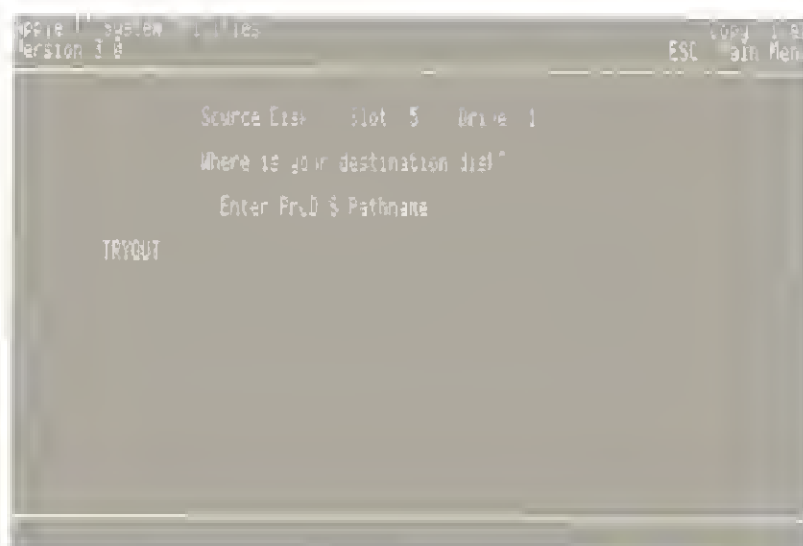
Figure 9-13
Specifying where you want the file to be copied

6. Press Control-X to erase the suggested name; then type TRYOUT/LETTERS and press Return.

You are providing the names of the disk and subdirectory you want to copy the file into.

A message asks whether you want to copy all the files or just some.

7. To copy some files, press Return.

A list of all the files in the main directory on the working copy of the system disk appears. (See Figure 9-14.) You will copy only COPY.ME.

The file you are going to copy
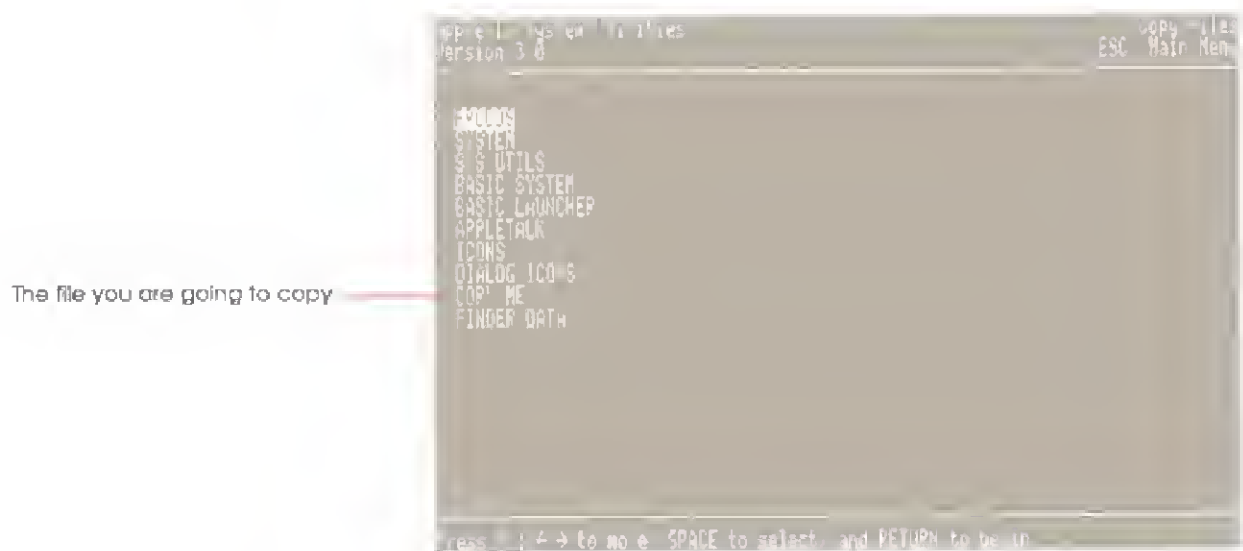
Figure 9-14
Specifying which file you want to copy

8. Use the arrow keys to highlight COPY.ME. Press the Space bar to select it, then press Return.

(If you need to deselect another file, use the arrow keys to highlight it, then press the Space bar again.)

The utilities immediately start copying the file. If you are using only one disk drive, you are asked after a few seconds to insert TRYOUT, your destination disk.

9. Follow any messages prompting you to swap disks.

If you are using the startup drive and one other disk drive, you won't have to swap disks.

With one disk drive, you'll need to remove the system disk and replace it with TRYOUT; then press Return.

When the file has been copied, you see the message shown in Figure 9-15.

Figure 9-15
Copying is complete

10. **To return to the Main Menu, press Return.**

    Now that you've added this file, you may want to see what the subdirectory LETTERS looks like.

11. **In the Main Menu, highlight Catalog a Disk and press Return.**

12. **Highlight ProDOS Pathname and press Return.**

    The pathname is your entry into the subdirectory. (Slots and drives take you only to the disk's main directory.)

13. **Type** `/TRYOUT/LETTERS` **and press Return.**

That provides the pathname to the subdirectory on your disk: /TRYOUT/LETTERS.

Figure 9-16 shows what the subdirectory looks like now.

Figure 9-16
The subdirectory called LETTERS

14. **Press Return to return to the Main Menu.**

Choose Quit in the Main Menu and turn off your computer.

Congratulations!

You've completed a detailed hands-on introduction to the utilities. You should be prepared to undertake almost any operation.

For more information about common procedures used with the utilities, read Chapter 10, "General Instructions on Using the Utilities."

You'll find step-by-step directions for each option on the Main Menu, arranged in the order of appearance, in Chapters 11, 12, and 13.

☐ Chapter 11 covers commands that work on entire disks.

☐ Chapter 12 covers commands that work on individual files.

☐ Chapter 13 covers commands that work on ProDOS disks only.

Chapter 10

General Instructions
on Using the Utilities

This chapter shows you how to start the utilities and perform some of the common tasks involved in using them:

□ getting help

□ selecting an option from the Main Menu

□ specifying the location of disks and files

□ selecting files

□ naming disks and files

□ choosing an operating system

□ escaping and quitting

Use the keyboard to communicate with the utilities even if you also have a mouse.

Starting up

Here's how to start the utilities programs on the system disk:

1. Put the system disk (or your working copy of it) in the startup drive.

2. If the power is off, turn the power on. If the computer is already on, press Apple-Control-Reset. (Reset is the key marked with a triangle.)

   You see a list of the files on the system disk. (See Figure 10-1.)

   If you don't see the system disk files, use this checklist to see if you can correct the problem:

   □ Is the computer plugged into an electrical outlet?

   □ Is the monitor also plugged in?

   □ If the computer or monitor is plugged into a power strip, is the strip turned on?

   □ Is the monitor connected to the computer?

   □ Is the system disk in the startup drive?

   □ Is the computer's power switch turned on?

   □ Is the monitor's power switch turned on?

   □ Are the monitor's contrast and brightness settings adjusted correctly?
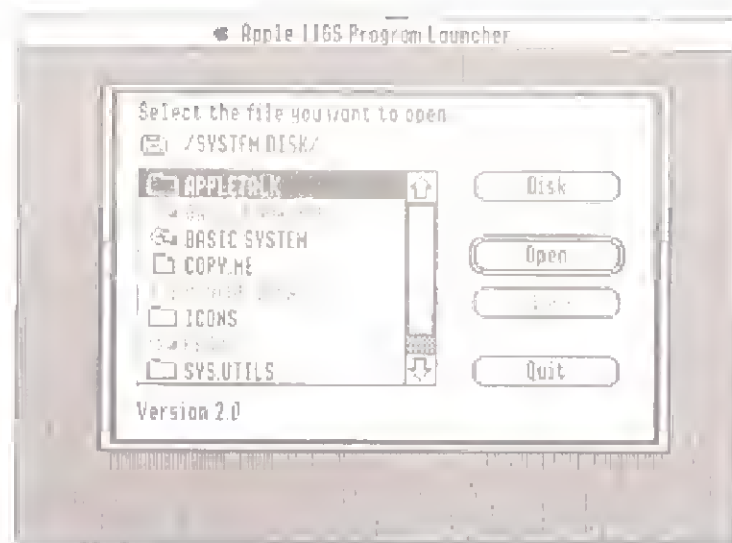
Figure 10-1
Files on the system disk

3. Press the Down Arrow until the subdirectory SYS.UTILS is highlighted.

4. Open the subdirectory called SYS.UTILS.

5. Open the application called SYSUTIL.SYSTEM.

    You see the Main Menu of the utilities.

Getting help

When you want to find out more about one of the options in the Main Menu, here's how to get background information on a function:

1. Highlight the option, but don't press Return.

2. Press Apple-?

    You don't need to press Shift to get the question mark.

    In general, help is available when you are in the Main Menu or when you are specifying the location of a disk or file.

3. When you've read the advice, press Return to get rid of the Help box.

For advice on what to do next, you can always look just *above* the line at the bottom of the screen. (See Figure 10-2.)
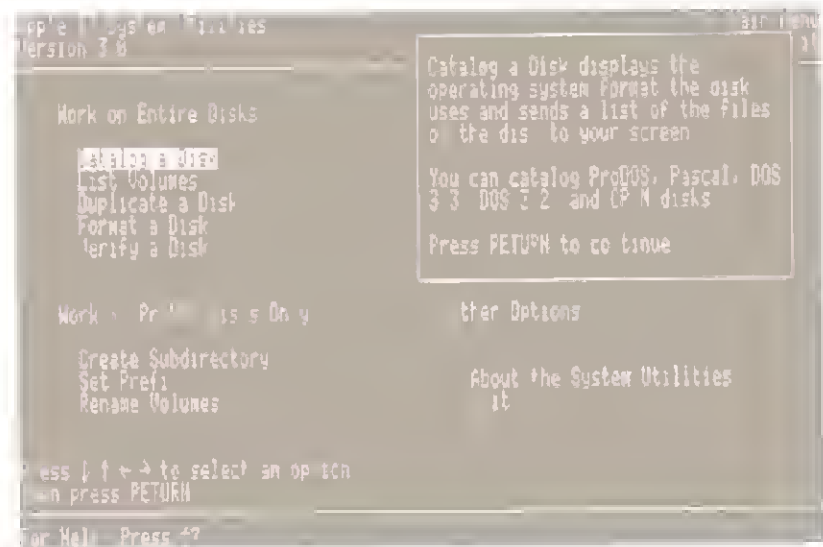
Figure 10-2
The Main Menu of the utilities

Selecting from the Main Menu

Here's how to choose one of the options in the Main Menu:

1. Use the arrow keys to move the highlighting to the function you want. (See Figure 10-3.)

Notice that the functions on the menu are grouped into categories devoted to whole disks, individual files, ProDOS disks and files, and other options.

2. When you have highlighted the function you want, press Return.

From any point in the utilities, you can return to the Main Menu by pressing Esc as many times as necessary. You can do this at any time.

Selected option
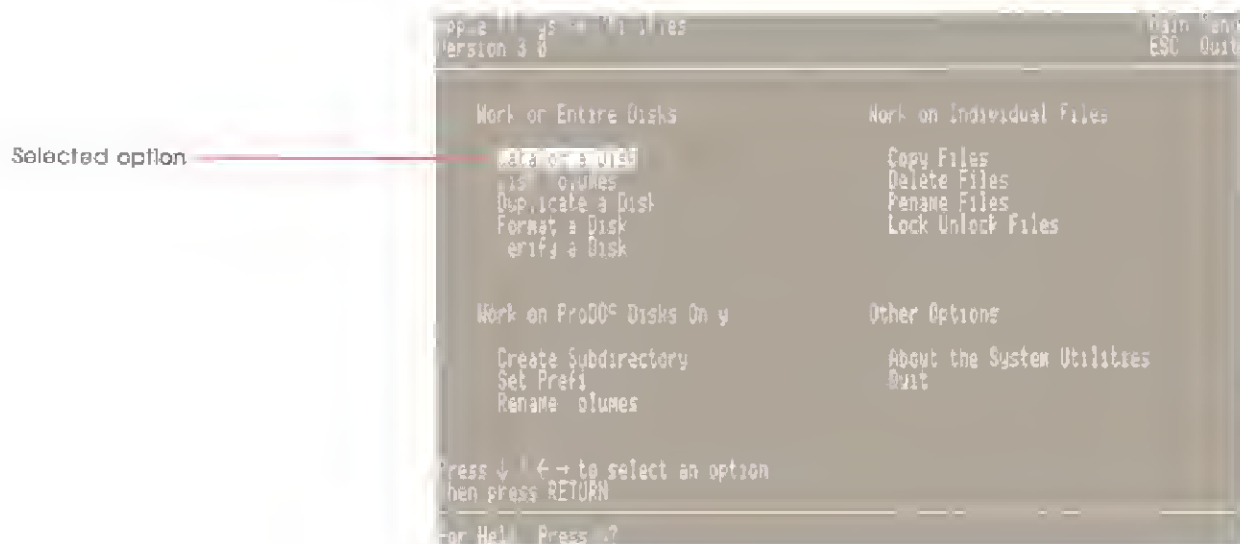
Figure 10-3
Selecting an option

Specifying the location of disks and files

In many circumstances, when you choose an option in the Main Menu, you see the screen shown in Figure 10-4.
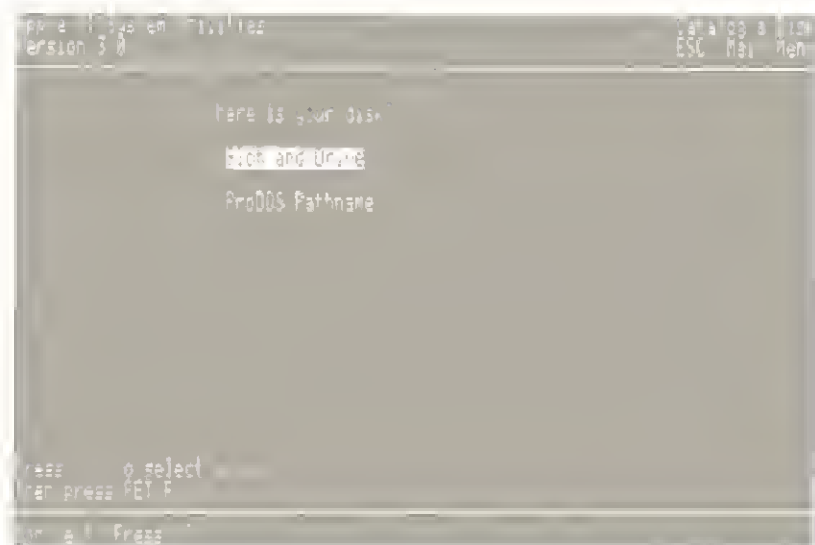
Figure 10-4
Specifying the location of your disk

You need to tell the utilities where to find the disk you want to work on. There are two ways to do so: by identifying the physical location of the disk, and by spelling out the pathname leading to the disk. First you pick the method, then you give details.

1. Specify the way you want to identify the disk's location by highlighting the Slot and Drive option or the ProDOS Pathname option, and then pressing Return.

   If you don't know the disk's name or don't feel like typing it, you'll find it convenient to use the slot-and-drive method. Use the pathname method when you're not sure which drive a disk is in or when you want to go directly into a particular subdirectory.

2. If you are providing slot and drive numbers and the numbers shown are correct, simply press Return. If you need to change a number, move the highlighting to the number you want to change by pressing Right Arrow or Left Arrow; then type the new number. When both settings are correct, press Return.

   ❖ *By the way:* You can also move the highlighting by pressing the Tab key.

If you have chosen to use the ProDOS pathname to identify the disk, a message appears giving the name of a disk.

□ To erase the name completely, press Control-X or type a slash (/).

□ To edit the name, press Left Arrow or Right Arrow to move the cursor (the blinking underline).

□ To delete the character to the left of the cursor, press Delete.

□ To insert characters to the left of the cursor, start typing.

The pathname begins with a slash, followed by the name of the disk. That's all you need to identify the disk itself. If you want to work on a file in a subdirectory, you must add another slash, followed by the name of the subdirectory. For instance, to indicate the route to the files in the subdirectory LETTERS on the disk TRYOUT, you would type /TRYOUT/LETTERS and press Return.

For more information about slots and drives, see "About System Utilities" in Chapter 8.

Selecting files

When you choose one of the utilities that works on files, you're asked whether you want the operation to apply to all the files in the disk or subdirectory, or only to some of them. If you choose all, the operation begins. If you choose some, you see a list of the files on the disk or in the subdirectory you specified. (See Figure 10-5.) Here's how to select one or more of those files:

1. Use the arrow keys to highlight a file you want to work with.

2. Press the Space bar to mark the file. (To remove the check mark, press the Space bar again).

3. Repeat steps 1 and 2 for each file you want to work with.

4. When you have marked all the files you want, press Return.
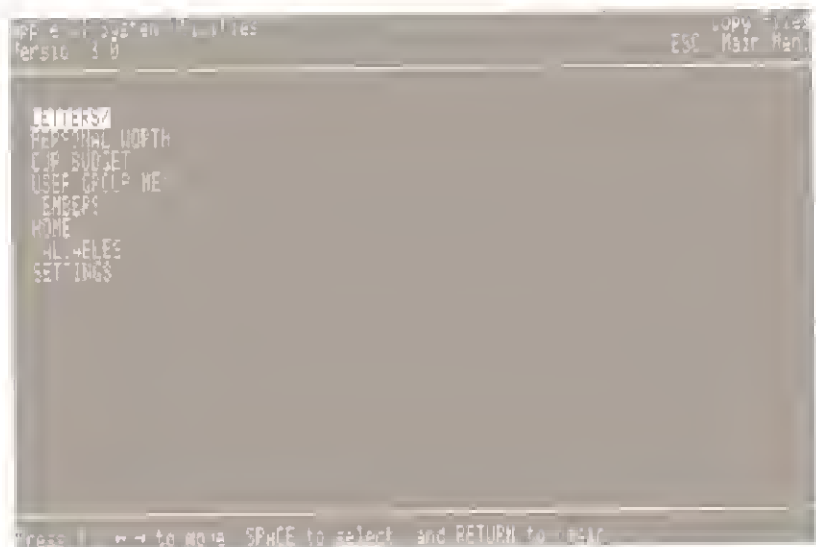
Figure 10-5
Marking files

Naming disks and files

You can use the utilities to rename a file or a ProDOS disk without changing its content, and to name a disk when you format it. In general, keep the name short so that you won't have to type much, but make sure to choose a meaningful name that you'll recognize a few months from now.

In choosing names for your disks and files, keep the following rules and suggestions in mind:

☐ Begin with a letter.

☐ Subsequent characters can be letters, numbers, or periods. (Do not use spaces or punctuation marks other than periods.) Where you would normally put a space, it's often helpful to use a period.

☐ The names of disks formatted with ProDOS, and of files stored on those disks, can be up to 15 characters long.

□ The names of disks formatted with the Pascal operating system can have up to 7 characters. The names of Pascal files can have up to 15 characters.

□ If you have a number of similar files, you may want to start their names with the same few letters. For example, you might name your letters to your mother *Mom1*, *Mom2*, and *Mom3*. Because filenames appear in alphabetical order, related files will show up together.

□ You *can* assign the same name to two different files, as long as they are in separate subdirectories. But to avoid confusion, it's best not to do so.

Here's how to create a name from scratch:

1. To erase all the characters in the suggested name, press Control-X or type a slash.

2. Type the new name.

3. When the name appears exactly as you want it, press Return.

Here's how to alter a suggested or existing name:

1. Use the following techniques to edit the name:

   □ To move the cursor (the blinking underline), press Left Arrow or Right Arrow.

   □ To erase all characters to the right of the cursor, press Control-Y.

   □ To delete the character to the left of the cursor, press Delete.

   □ To insert characters to the left of the cursor, just start typing.

2. When the name appears exactly as you want it, press Return.

A pathname provides the utilities with a path leading to a sub-directory or a file. Here are the rules for creating a pathname:

□ Each part of the pathname begins with a slash.

□ The first part is the disk name.

□ The next part is the subdirectory, or a series of subdirectories, if needed.

□ The last part is the filename, if needed.

□ The maximum number of characters, including slashes, is 64.

For information on renaming files, see "Renaming Files" in Chapter 12. For information on naming a subdirectory and using a pathname, see "Creating a Subdirectory" and "Setting a Prefix" in Chapter 13. For information on renaming a ProDOS disk without changing its contents, see "Renaming a ProDOS Disk" in Chapter 13.

❖ *For Pascal users:* You can't rename a Pascal disk with a single command, as you can a ProDOS disk. You can, however, use the Duplicate a Disk option (described in Chapter 11) to copy a Pascal disk and give the copy a new name. You can also format a new disk with Pascal, giving it the new name, and then copy the files from your old disk to the new one.

Choosing an operating system

When formatting a disk, you need to decide which operating system to use. You can choose either ProDOS or Pascal.

Each application depends on an operating system as a kind of subcontractor to carry out tasks such as transferring data from a disk to the central processing unit and back. The application is said to be *based* on that operating system. When you save or copy a file created in that application, you must store it on a disk that has been formatted for the application's operating system. If you don't, the application won't be able to retrieve the file later.

To decide which operating system you want to use in formatting a disk, you need to know what operating system the application uses. If you're not sure, look on the program disk's label or check the owner's guide for the application. You can also use the Catalog a Disk option in the Main Menu of the utilities to find out what operating system an application uses.

When copying files, remember to make sure you are placing the files on a disk formatted with the application's own operating system.

Working with Pascal disks and files

Pascal disk names can be up to 7 characters long. Pascal filenames can be up to 15 characters long.

Some options in the Main Menu work only on ProDOS disks and files because ProDOS is the only Apple II operating system that supports subdirectories. The Pascal operating system was designed for 5.25-inch disks, which can hold only 143K of data. On disks of that size, subdirectories are unnecessary, so Pascal does not let you create them. Nor does it let you set up a prefix.

Working with other non-ProDOS disks and files

DOS was the original operating system for the Apple II family of computers; 3.3 is a version number.

You can use the Copy Files option to copy **DOS 3.3** files to disks formatted with DOS 3.3. (The utilities on the *Apple IIGS System Disk* will not format a disk with DOS 3.3; you'll have to use BASIC or a DOS 3.3 utility to do so.)

You can also copy DOS 3.3 files onto a ProDOS disk. This procedure transforms these files into ProDOS files that can then be retrieved and read by a ProDOS-based application such as AppleWorks®. But the original DOS 3.3 application will no longer be able to retrieve or read the file.

❖ *By the way:* You can catalog a disk formatted with DOS 3.2 or CP/M, but you cannot use any of the other utility options on those disks.

Escaping and quitting

You can return to the Main Menu from anywhere in the utilities—just by pressing Esc. If you're not sure whether to proceed with a function, you can always back out by pressing Esc.

1. To return to the Main Menu, press Esc.

   You may need to follow this step more than once.

2. To leave the utilities from the Main Menu, choose Quit.

   You will see a message asking whether you really want to quit. If you do, highlight Yes and press Return. After a few seconds, you'll return to the Program Launcher. From there you can start up another application.

   If you want to do some programming, keep the system disk in the startup drive and open BASIC.SYSTEM.

Chapter 11

Working With Disks

In this chapter, you'll learn how to use the utilities for tasks involving whole disks:

□ cataloging a disk (showing you what files are on it)

□ listing **volumes** (showing what disks are in your disk drives)

□ duplicating a disk (making a copy)

□ formatting a disk (preparing it to receive data)

□ verifying that a disk is readable

The instructions in this chapter assume that you know how to

□ start up

□ get help

□ select from the Main Menu (Figure 11-1)

□ specify the location of disks and files

□ select files

□ name disks and files

□ choose an operating system

When you're working with 5.25-inch and 3.5-inch disks, a **volume** is the same as a disk.

Options that help you work
with disks

Instructions on selecting
a function

Instructions on getting help
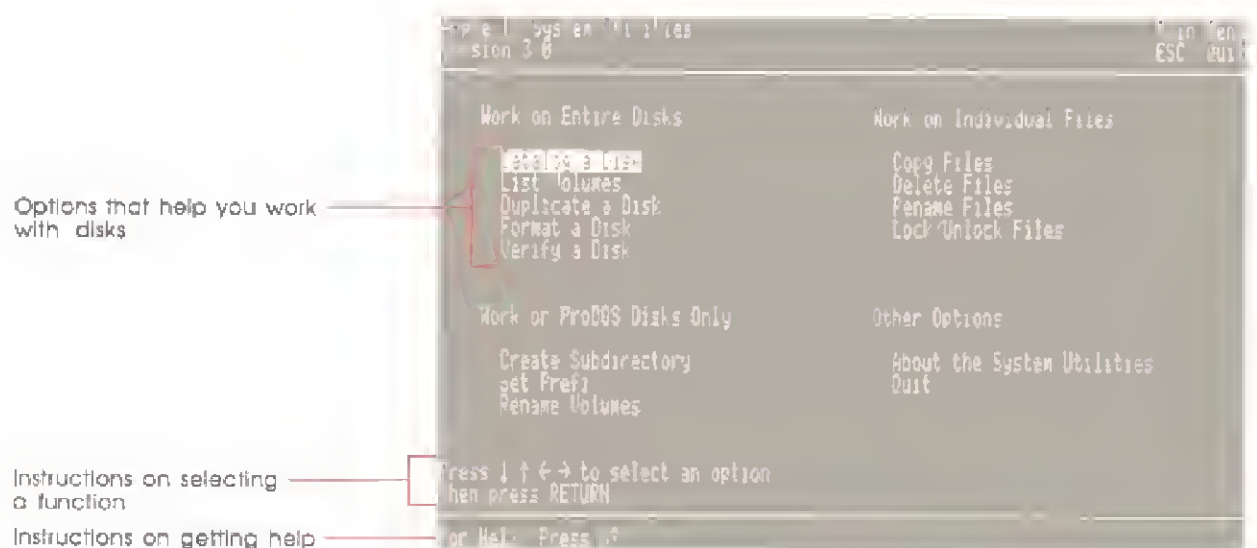
Figure 11-1
The Main Menu of the utilities

Cataloging a disk

You may want to know what files are on a particular disk or what the
disk's name is. This information is contained in the disk's directory.
When you catalog a disk, you can find out its operating system and
name, the name of every file on the disk, the type and size of each
file, and the amount of space available on the disk.
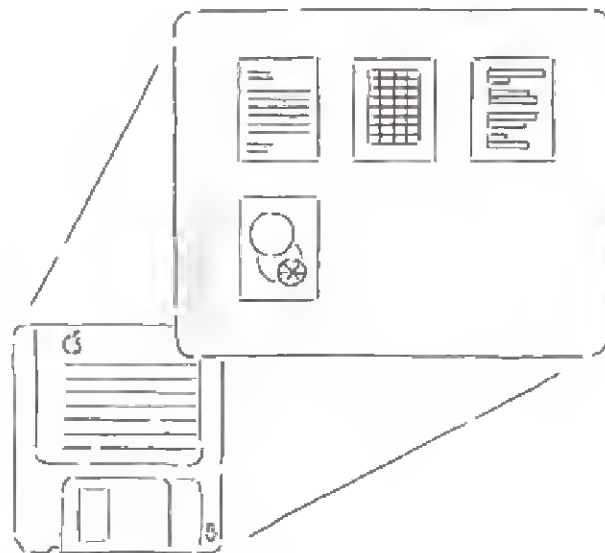
Figure 11-2
Cataloging a disk

1. In the Main Menu, choose Catalog a Disk and press Return.

2. If you are using only one drive, replace the system disk with the disk you wish to catalog. If you are using a second drive that can accept the disk, insert the disk you wish to catalog in that drive.

3. Choose the way you want to identify the location of the disk to be cataloged; then specify the location of the disk.

   When you specify the location of a disk by name or by physical location, the utilities display a list of the top level of files but do not open any subdirectory. (See Figure 11-3.) To find out what files are contained in a particular subdirectory, use the ProDOS pathname to specify the location of the subdirectory. Type a slash, the disk name, another slash, and the subdirectory name, like this:

   /TRYOUT/LETTERS

   Then press Return.

   The utilities provide a catalog of the files in the subdirectory.

For more information on slots and drives, see "About System Utilities" in Chapter 8.

The name of the disk ———

The disk operating system used to format this disk

The kind of file (depends on which application you used to create the file)

Files on the disk ———

The size of the file, measured in blocks of 512 bytes

The amount of space still available on the disk

Figure 11-3
The Catalog a Disk screen

Figure 11-4
Listing volumes

Listing volumes

Sometimes you need to identify which disk is in which drive. When you list volumes, you see the names and operating systems of all formatted disks in drives connected to your computer. You also see the slot and drive numbers corresponding to those drives.

If you have a hard disk, you may have carved it up into several storage areas, known as *volumes*; if these volumes are formatted correctly, their names will also appear on your list.

1. If you are using one drive, replace the system disk with the disk you want identified. If you are using more than one drive, make sure the disks are in the drives.

2. In the Main Menu, choose List Volumes; then press Return.

You see a list of all the formatted disks you can use. (See Figure 11-5.) If a particular disk drive does not appear, make sure that it has a formatted disk in it and that the connection with the computer is secure.

The name of the disk in the drive

The disk format

The slot assigned to a disk drive
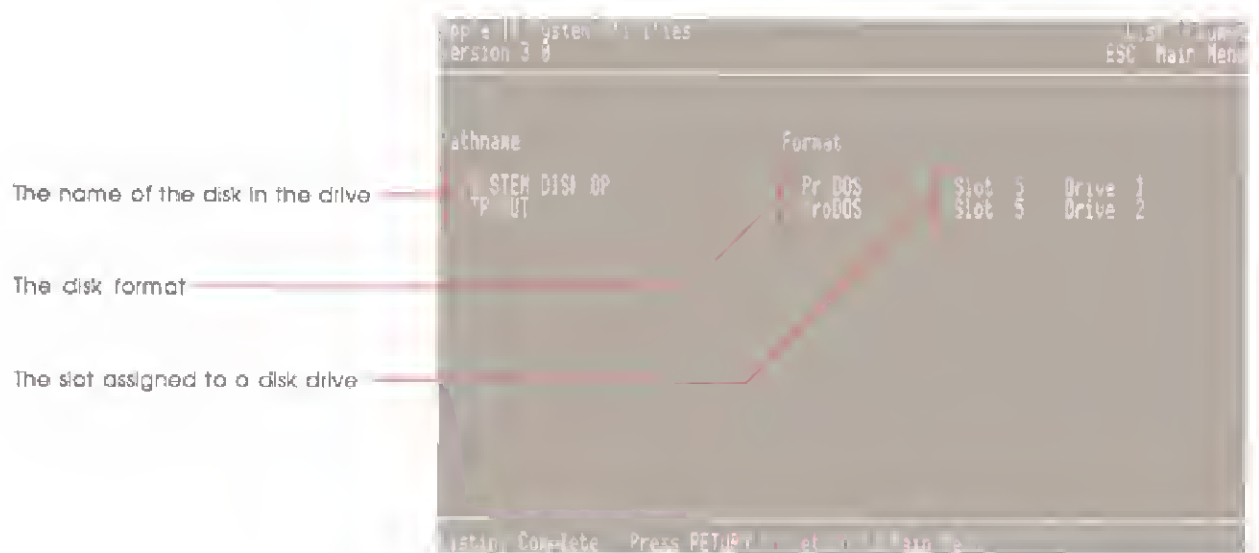
Figure 11-5
The List Volumes screen

Duplicating a disk

Using this option, you can copy all the information from one disk onto another of the same size.

Important   If you have only one drive that can handle disks the same size as your original, you should choose FastCopy in the System Disk menu, described in Chapter 8; if you want to copy just a few files, you should choose Copy Files in the Main Menu of the utilities, described in Chapter 12. Using the Duplicate a Disk option with only one drive is possible, but it involves many disk swaps and can be a tedious procedure.

ORIGINAL   COPY
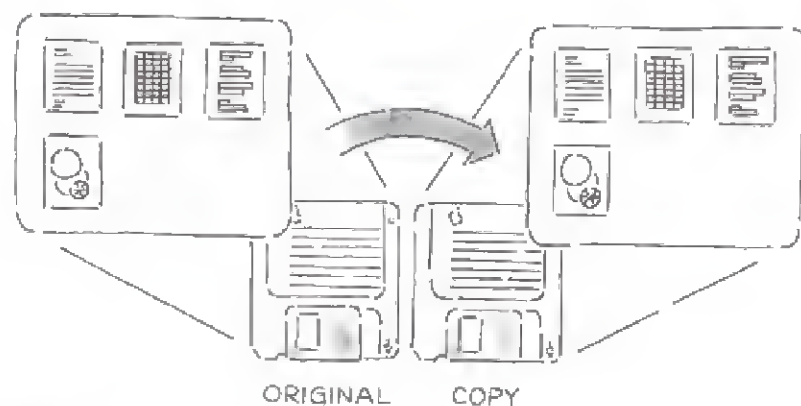
Figure 11-6
Duplicating a disk

1. In the Main Menu, choose Duplicate a Disk and press Return.

2. Specify the location of the source disk (the one you want to duplicate).

   For information on slots and drives, see "About System Utilities" in Chapter 8.

3. Specify the location of the destination disk.

   You can use an unformatted disk or one with unwanted data on it as a destination disk. The utilities will reformat the disk before making the copy, wiping out any existing data, so be sure the destination disk contains nothing you need. If you have any doubt, press Esc to return to the Main Menu; then choose Catalog a Disk and make sure there are no files you still want on the disk.

   The destination disk must be the same size as the source disk. You cannot use the Duplicate a Disk option to copy the contents of a 3.5-inch disk onto a 5.25-inch disk or vice versa. You can use Copy Files, described in Chapter 12, to copy individual files between disks of different sizes.

4. You'll see a message asking you to insert the source and destination disks. (See Figure 11-7.) If you haven't already done so, insert the disks and press Return.

5. Accept the suggested name for the backup disk by pressing
   Return, or create a new one and then press Return.

   See "Naming Disks and Files" in Chapter 10 for a list of rules for
   naming disks.

6. If your destination disk has previously been formatted, it may
   have some data on it; if so, a message asks whether you want
   to destroy the disk. This does not mean that your disk will be
   physically harmed, but before duplicating, the utilities will
   reformat the destination disk, erasing any data now on it. If you
   are sure you do *not* need any of the data on the destination disk,
   choose Yes and press Return. If you have any doubt, choose No;
   that takes you back to the Main Menu. Then choose Catalog a
   Disk to make sure that the disk contains no files you want to
   preserve.

The location of the two disks

The suggested name for the
new volume
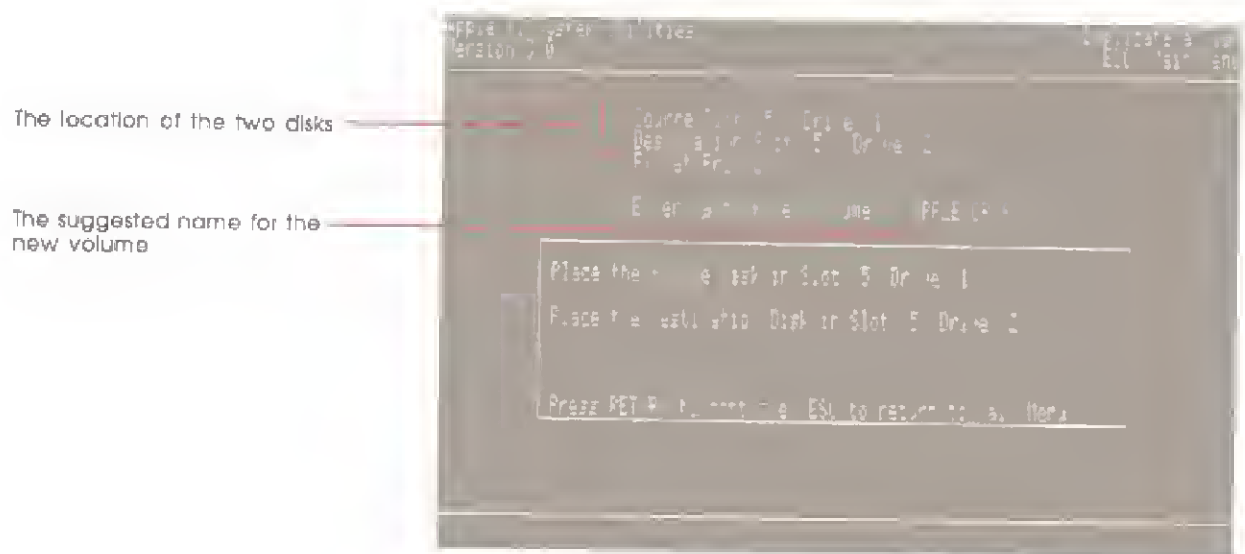
Figure 11-7
The Duplicate a Disk screen
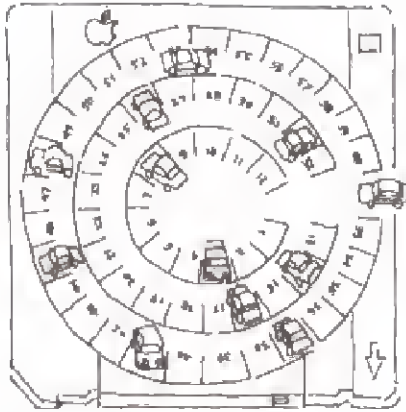
Figure 11-8
Formatting a disk

Formatting a disk

Before you can save a document or copy files to a blank disk, you need to prepare the disk to store data. This process is known as **formatting** the disk. Formatting erases any data that happens to be on the disk, so if you're not sure what's on a data disk that you're thinking of formatting, you should first use the Catalog a Disk option to see what files are there and to assure yourself that you don't need any of those files.

❖ *By the way:* You don't have to format a disk if you intend to use it as the destination disk when duplicating a whole disk; the duplicating option automatically reformats the destination disk, wiping it clean so that it can receive the new data.

1. In the Main Menu, choose Format a Disk and press Return.

2. Confirm that you will identify the location of the disk you want to format by slot and drive; then specify its location.

   For information on slots and drives, see "About System Utilities" in Chapter 8.

3. Choose the disk operating system required by the application you'll be using to create files for this disk.

   If you are not sure which operating system the application requires, press Esc to return to the Main Menu; insert the application disk in your startup drive and use the Catalog a Disk option. You'll see the name of the operating system at the top of the display.

4. Type the name you want to give the disk when it's formatted and press Return, or accept the one that's suggested by pressing Return.

   See "Naming Disks and Files" in Chapter 10 for a list of rules on naming disks.

5. When prompted, place the disk you wish to format in the drive you specified in step 2. Press Return. (See Figure 11-9.)

6. If the disk has already been formatted, you will see a message asking whether it's okay to destroy the existing data on the disk as part of reformatting it. This does not mean that the utilities will physically harm your disk, but formatting will erase any data now on it. If you are sure you do *not* need any of the data on the disk, choose Yes and press Return. If you have any doubt, choose No and press Return; then choose Catalog a Disk to make sure that the disk contains no files you want to preserve.

The location of the disk you are formatting

The new name of the disk

Figure 11-9
The Format a Disk screen

In the process of formatting, three things happen:

☐ The disk is divided into sections where information can be stored.

☐ A directory—an empty list waiting to record the names of files you save on the disk—is set up on the disk.

☐ The name you typed or accepted is assigned to the disk as its **volume name.**

Once the disk has been prepared to receive data, it is known as a *volume*. You are now ready to save files onto this disk from any application that uses the operating system (ProDOS or Pascal) that you formatted it with.

Verifying that a disk is readable

Sometimes things go wrong. You may see a message saying that the computer can't read a file or a disk. Perhaps your application won't start, or it seems to start, but then garbled characters fill the display. Reinsert the disk, making sure to place it securely, check all the connections, and then try again. If you still have problems, make sure the disk has been formatted for the same operating system your application uses, and then try again.

Figure 11-10
Verifying that a disk is readable

If the disk still can't be read, there may have been some physical damage to the disk. Here's how to make sure that a disk is readable:

1. In the Main Menu, choose Verify a Disk and press Return.

2. Insert the disk.

3. Press Return to confirm that you will use the slot-and-drive method to identify the location of the disk; then specify its slot and drive.

For information on slots and drives, see "About System Utilities" in Chapter 8.

If the utilities find errors or problems, use Copy Files to copy all the files—or any files that you can—onto another disk. Then reformat the disk and check it again, using the Verify a Disk option. If errors show up again, try another disk in the same drive. If that disk can't be read, have your authorized Apple dealer check the drive. If the utilities verify other disks in that drive, throw the damaged disk away.

The message "No errors" means that a disk is undamaged and that any files on it should be readable by the application with which they were created. (See Figure 11-11.)

The location of the disk _____

The result _____
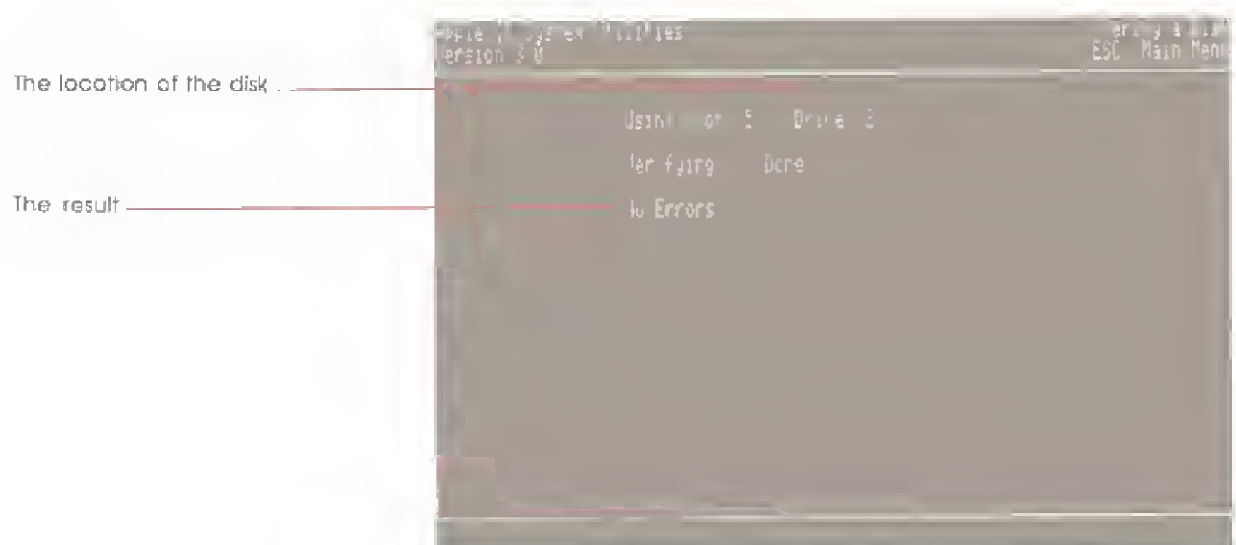
Figure 11-11
The Verify a Disk screen

Chapter 12

Working With Files

In this chapter, you'll learn about

□ copying files

□ deleting files

□ renaming files

□ locking and unlocking files

For files created with an application that uses ProDOS, you can also create a subdirectory; that task is covered in Chapter 13, "Working With ProDOS Disks and Files."

The instructions in this chapter assume that you know how to

□ start up

□ get help

□ select from the Main Menu (Figure 12-1)

□ specify the location of disks and files

□ select files

□ name disks and files

□ choose an operating system

See Chapter 10, "General Instructions on Using the Utilities," if you need more information about any of these procedures.

Options that help you work
with files
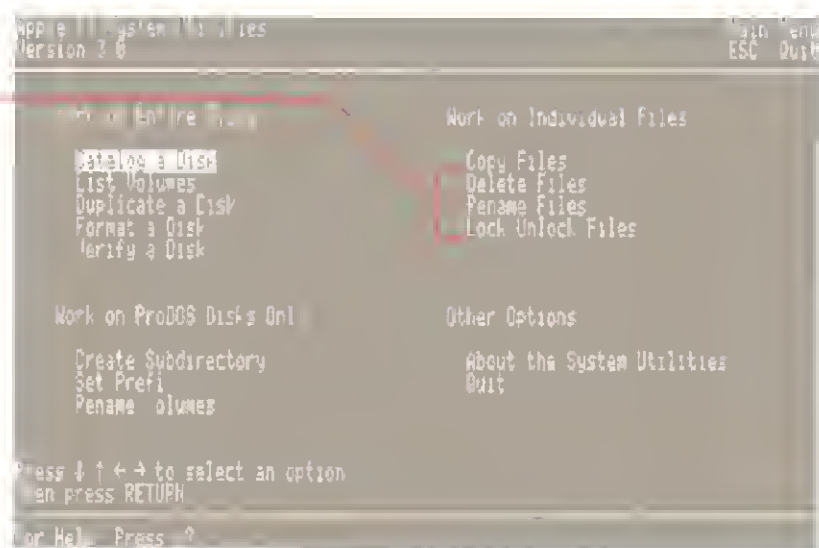
Figure 12-1
The Main Menu of the utilities

Copying files

You can use the utilities to make a copy of one or more files.

Copying with only one disk drive can become tedious. One way to
avoid it is to make more than one copy of a file when you are still in
an application, saving the document to one disk, then saving it
again to another disk. In this way, you can quickly make a backup
copy without having to use the utilities.

Remember that you must copy a file onto a disk that has been
formatted using the same disk operating system as that used by the
application—so that the application can read the file. To ascertain
which disk operating system the application uses, check the label of
the program disk or the owner's guide for the application. You can
also use the Catalog a Disk option.
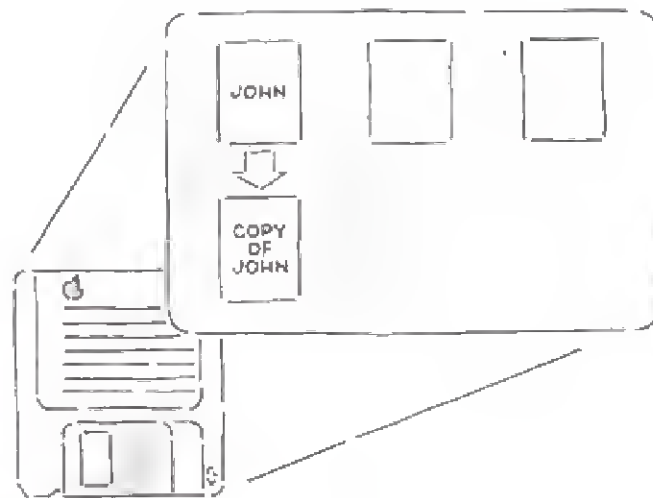
Figure 12-2
Copying files

1. In the Main Menu, choose Copy Files and press Return.

2. Insert the source disk (the one with the files you want to copy).

3. Choose the way you want to identify the location of the source disk; then specify its location.

   For information on slots and drives, see "About System Utilities" in Chapter 8.

4. If you are using more than one drive, insert the destination disk (the one that will receive the copies) in another drive.

   If you are using only one drive, remove the source disk when prompted and replace it with the destination disk. Press Return. (Depending on the size and number of the files you're copying, you may need to exchange disks anywhere from 1 to 80 times to complete the copying; that's why it's a good idea to make copies of files from within the application.)

5. Choose the way you want to identify the location of the destination disk; then specify its location.

6. Specify whether you want to copy all the files on the original disk or only some. Then press Return.

If some, press Up Arrow or Down Arrow to move through the list; mark each file you want to copy by pressing the Space bar. (To remove a check mark, press the Space bar again.) When you have marked all the files you want to copy, press Return.

If you try to copy a file onto a disk that already contains a file by that name, you'll be alerted with a message like this: "File ALAN already exists, delete it?" If you do not want the old version replaced with your copy, choose No and press Return, saying that it is *not* OK. If you want to update the old file, replacing it with the copy, choose Yes and press Return.

Instructions for this option
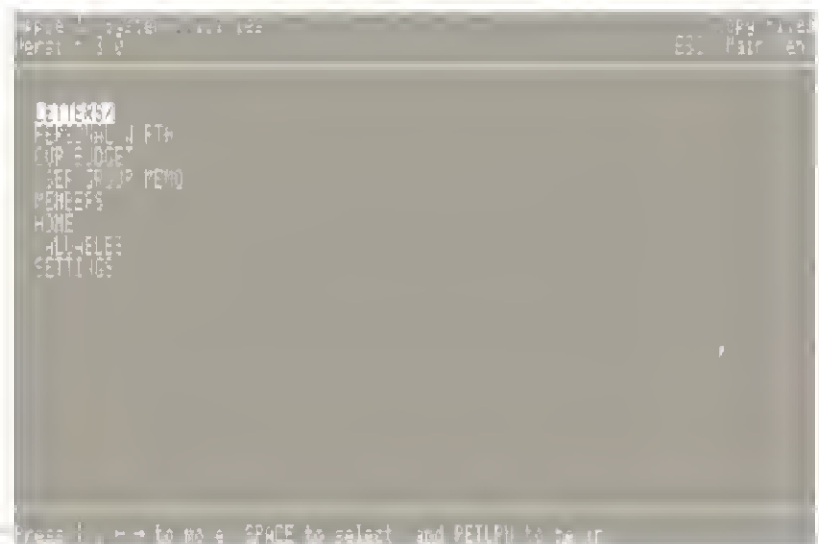
Figure 12-3
The Copy Files screen

Deleting files

Sometimes you need to free up disk space by permanently erasing one or more files. You can do so with the Delete Files option.
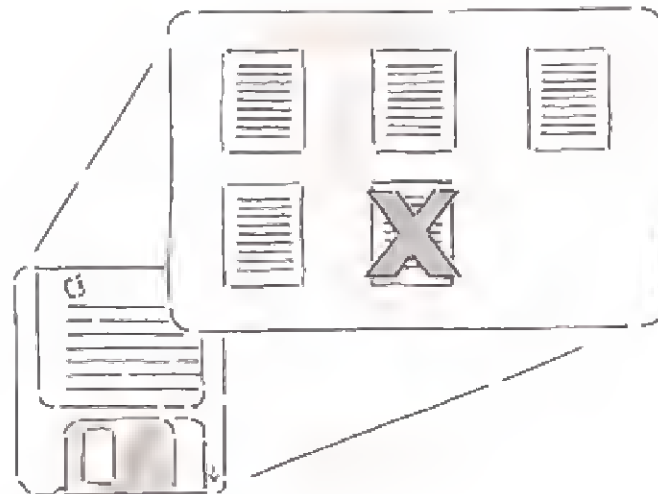
Figure 12-4
Deleting files

❖ *By the way:* If you want to delete every file on a disk, it's faster to use the Format a Disk option, which erases all data on a disk during formatting.

1. In the Main Menu, choose Delete Files and press Return.

2. If you have a second drive, insert the disk with files to be deleted in that drive. If you are using only one drive, be sure to remove the system disk and replace it with the disk containing the files you want to delete.

3. Choose the way you want to identify the location of the disk containing the files you want to delete; then specify its location.

   For information on slots and drives, see "About System Utilities" in Chapter 8.

4. Specify whether you want to delete all the files on the disk or only some; then press Return. If some, select the files.

To select the files you want to delete, press Up Arrow or Down Arrow to move the highlighting; press the Space bar to select each file. Press the Space bar again to remove a check mark. When you have selected all the files you want to delete, press Return.

If a file is locked, you'll be warned before it is deleted; to override the protection and erase the file anyway, choose Yes and press Return. To cancel your command, choose No, then press Return.

Instructions for this option
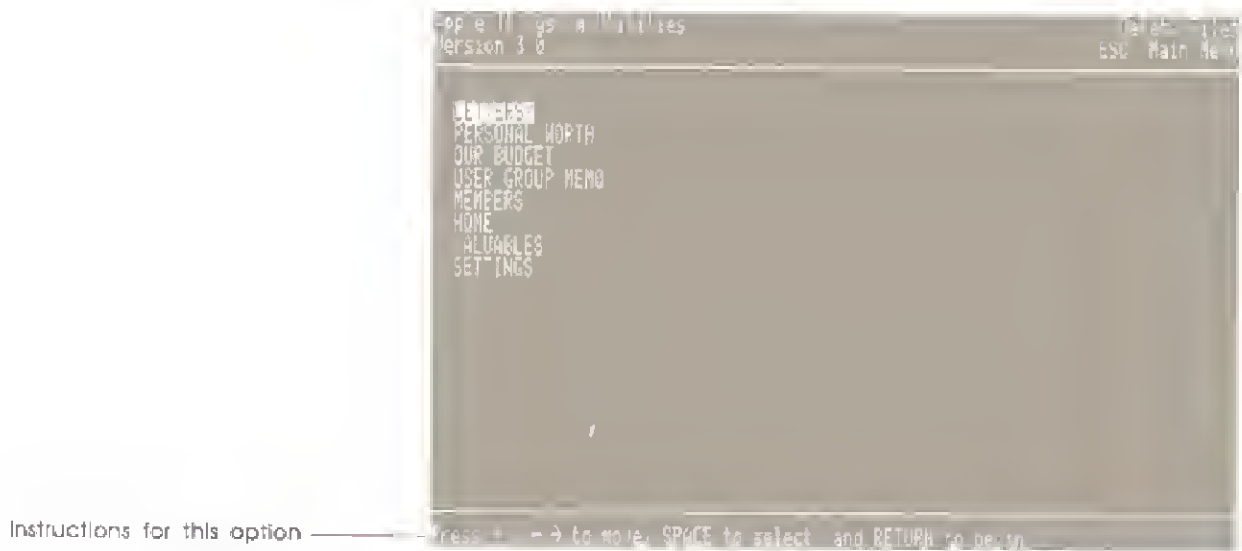
Figure 12-5
The Delete Files screen

Renaming files

With this option you can change the name of a file without changing its contents.
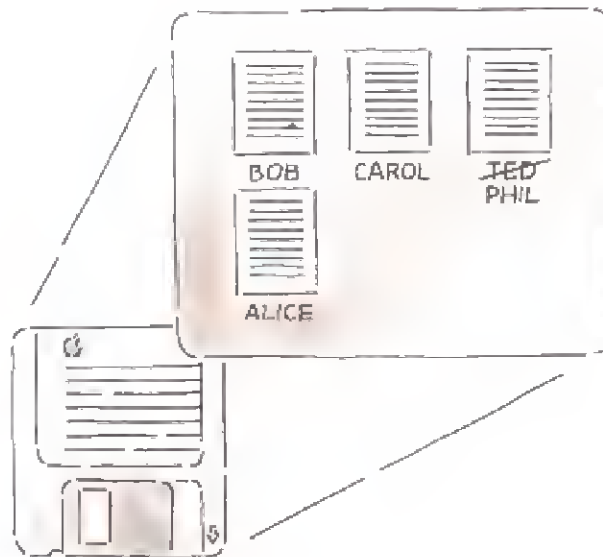
Figure 12-6
Renaming files

1. In the Main Menu, choose Rename Files and press Return.

2. Insert the disk that contains the files you want to rename in a disk drive. If you are using only one drive, be sure to remove the system disk and replace it with the disk containing the file.

3. Choose the way you want to identify the location of the disk containing those files; then specify its location.

   To specify a file within a subdirectory, you must use the ProDOS pathname. For information about locations, see "About System Utilities" in Chapter 8.

4. Specify whether you want to rename all the files on that disk or in that subdirectory, or only some; then press Return.

If some, press Up Arrow or Down Arrow to move through the list, and press the Space bar to mark each file to be renamed. (Press the Space bar again to remove a check mark). When you have selected all files to be renamed, press Return.

5. For each file, edit the original name, or erase it and type a new name. Then press Return.

See "Naming Disks and Files" in Chapter 10 for a list of rules for naming files.

To edit the original name, press Left Arrow or Right Arrow to position the cursor; then insert new characters to its left. To erase the character to the left of the cursor, press Delete. To delete all characters to the right of the cursor, press Control-Y. To delete all characters in the original name, press Control-X.

Locking and unlocking files

Sometimes you finish a document, and you don't want to change it. You can use the utilities to protect such a file from accidental changes, deletion, or renaming.

Later, if you decide to update the file, you can use the utilities to remove the protection, unlocking the file.

Figure 12-7
Locking files

Figure 12-8
Unlocking Files

❖ *By the way:* You cannot lock or unlock files on a Pascal-formatted disk, because that operating system does not allow this kind of protection. To protect Pascal files, **write protect** the whole disk. See the *Apple IIGS Owner's Guide* for information about write protection.

1. In the Main Menu, choose Lock/Unlock Files and press Return.

2. Insert the disk with the files you want to lock or unlock in a disk drive. If you are using only one drive, remove the system disk and replace it with the disk containing those files.

3. Choose the way you want to identify the location of the disk; then specify the location.

   To specify a file within a subdirectory, you must use the ProDOS pathname when asked "Where is your disk?"

   For information about locations, see "About System Utilities" in Chapter 8.

4. Indicate whether you want to lock or unlock the files.

   Move the highlighting to Lock or Unlock, then press Return.

5. Specify whether you want to select all the files on that disk or only some; then press Return.

   If some, press Up Arrow or Down Arrow to move through the list, then press the Space bar to select each file. (See Figure 12-9.) (Press the Space bar again to remove a check mark). When you have selected all the files you want, press Return.

Instructions for this option

Figure 12-9
The Lock/Unlock Files screen

Chapter 13
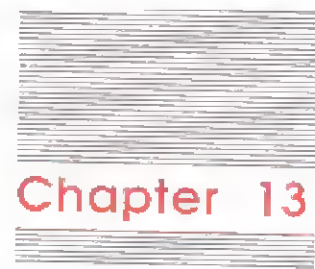
Working With ProDOS Disks and Files

Most of the utilities on the system disk work with disks and files regardless of their operating system. But ProDOS, the most recent disk operating system for the Apple II family of computers, offers a little more than DOS 3.3 or Pascal. In this chapter, you'll learn about the additional options available when you're working with ProDOS files and disks:

□ creating a subdirectory

□ setting a prefix

□ renaming a ProDOS disk (known as a *volume*)

The instructions in this chapter assume that you know how to

□ start up

□ get help

□ select from the Main Menu (Figure 13-1)

□ specify the location of disks and files

□ select files

□ name disks and files

□ choose an operating system

See Chapter 10, "General Instructions on Using the Utilities," if you need more information about any of these procedures.

Options that help you work with ProDOS disks and files
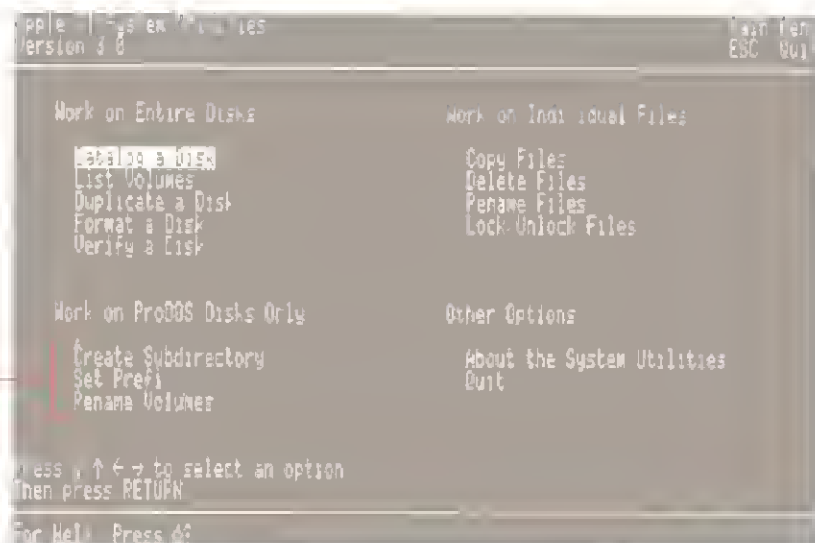
Figure 13-1
The Main Menu of the utilities

Creating a subdirectory

A subdirectory is like a folder that can contain related files and a list of those files—a miniature catalog that is subordinate to the main directory for the disk. Subdirectories help you to keep a disk directory from becoming cluttered. You can keep a group of related files in one folder and another group in another folder; that way, you won't have to hunt through a long list to find the one file you need.

Some applications that use ProDOS take advantage of its ability to create a subdirectory and save files to it within the application.

Other ProDOS-based applications require that you use the utilities to create the subdirectory. Once a subdirectory has been created, you can save files to it while in the application by supplying the pathname that leads to that subdirectory.
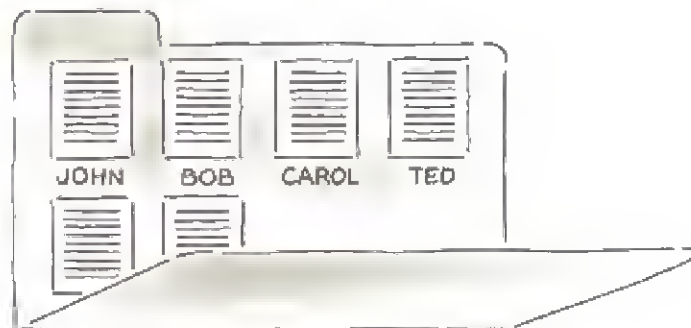
Figure 13-2
Creating a subdirectory

1. In the Main Menu, choose Create Subdirectory and press Return.

2. If you are using one drive, replace the system disk with the destination disk (the disk on which you want to create the new subdirectory). If you have a second drive, insert the destination disk in that drive.

3. Choose the way you want to identify the location of the disk on which you will create a subdirectory; then specify its location.

   For information on slots and drives, see "About System Utilities" in Chapter 8.

4. Name the subdirectory.

   See "Naming Disks and Files" in Chapter 10 for a list of rules on naming files.

   Remember that a subdirectory is itself a file; it just happens to contain other files—and a list of those files, similar to the main directory but subordinate to it.

   You can also create subdirectories within subdirectories. For instance, on a disk named MYSTUFF, you could create a sub-directory called WORK; in that subdirectory you could have two more subdirectories, one called ACCOUNTS, the other called LETTERS. And you could sort out your letters into further sub-directories named MEMOS, SUPPLIERS, CONTACTS, CLIENTS, and CONSULTING. Now that's organized!

   If you want to create a subdirectory within a subdirectory, you must use the ProDOS pathname method of specifying the location of the subdirectory to be created.

If you were putting the letter to your client John in its subdirectory, the pathname would be within the legal maximum of 64 characters:

/MYSTUFF/WORK/LETTERS/CLIENTS/JOHN
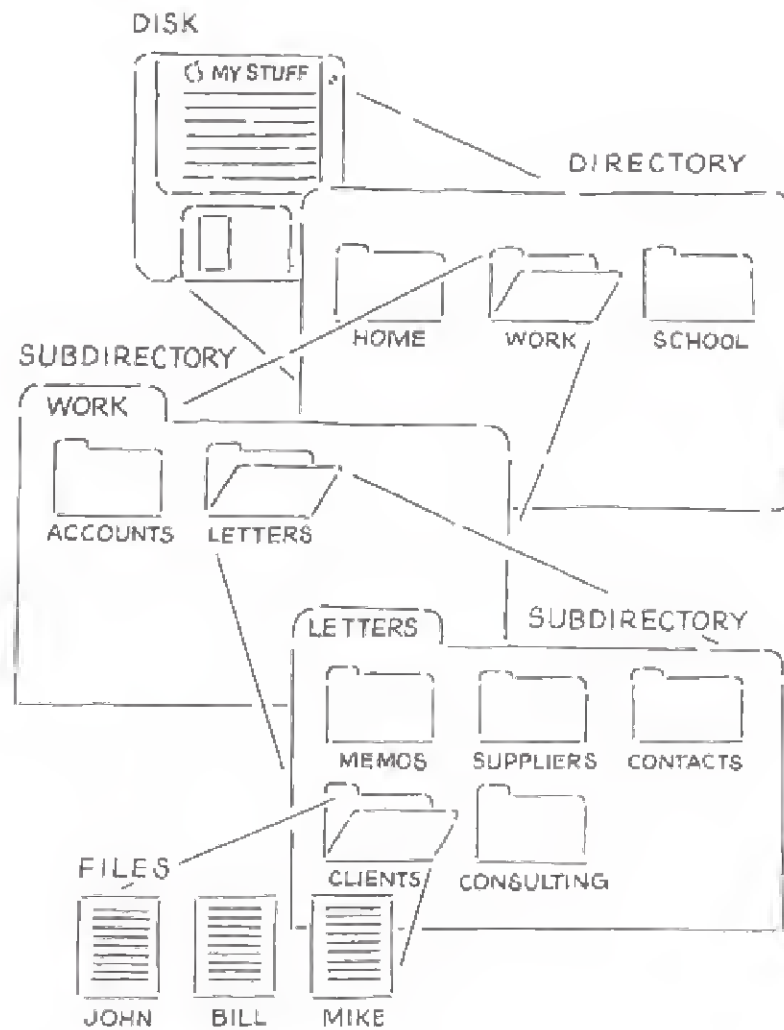
Figure 13-3
Putting a file in a subdirectory

Once you've created a subdirectory, you can use the Copy Files option to move existing files into the subdirectory; if you are using a ProDOS-based application, you can also save any document you've been working on, using a pathname to place it into the subdirectory.

Setting a prefix

One of the ways to specify the location of a disk, subdirectory, or file is to provide the ProDOS pathname. The pathname is a sequence of names—the disk name, the subdirectory name if any, and the filename (if needed). Each part begins with a slash, like this: /TRYOUT/LETTERS/ALAN.

There are times when you need to go back to the same disk or subdirectory repeatedly. For instance, you might need to copy a dozen letters from several different disks into the LETTERS subdirectory on your backup disk. In such situations, you may find yourself typing the same parts of the same pathname over and over.

With the Set Prefix option, you can establish a shortcut to a particular disk or subdirectory so that you don't have to keep typing part of the pathname. For instance, you could set the prefix to be /TRYOUT/LETTERS. Then, whenever you choose to specify a location by ProDOS pathname, the utilities will present the name /TRYOUT/LETTERS/ already entered. All you need to do is press Return, and the files will be put in that subdirectory. On big jobs, this option can save you a lot of typing.
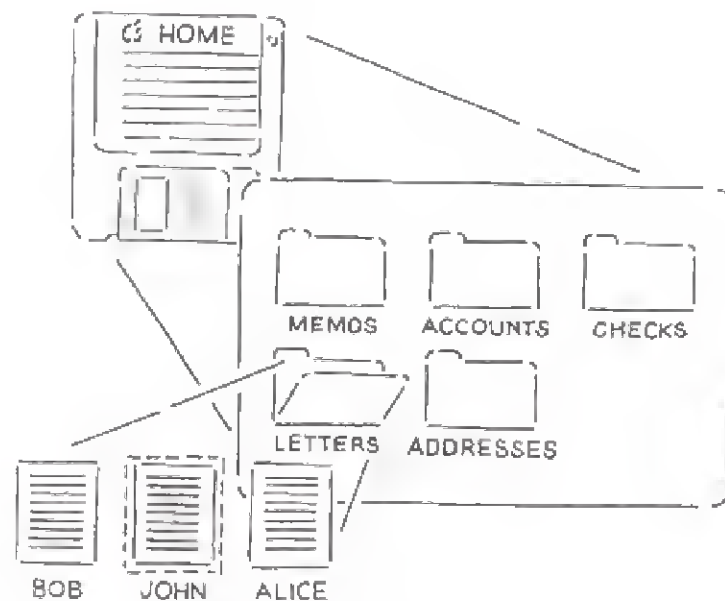
/ HOME / LETTERS / JOHN

Figure 13-4
Setting a prefix

1. In the Main Menu, choose Set Prefix and press Return

2. Choose the way you want to identify the location of the disk you're setting the prefix for—by physical location or by name; then specify its location.

   For information on slots and drives, see "About System Utilities" in Chapter 8.

   The utilities now provide you with the name of the disk and ask you to enter the full or partial pathname you want to use as a prefix to individual filenames.

3. If you just want a prefix that leads to a particular disk, edit the name and press Return, or accept the suggested name by pressing Return. If you want a prefix that leads to a subdirectory, add that part of the pathname and press Return. (See Figure 13-5.)

For instance, if you specify the disk in slot 5, drive 2, and that disk turns out to be TRYOUT, you can simply press Return if all you want is to return to that disk over and over. But if you want to return specifically to the subdirectory LETTERS on the disk, you add the subdirectory name, so that the prefix becomes /TRYOUT/LETTERS. Then you press Return.

Once you've set the prefix, you can choose the ProDOS pathname whenever asked to specify the location of a file you want to work with. The pathname will appear with the prefix already entered; all you need to do is press Return to accept it.

The prefix stays set until you change it or turn off the computer. You can always override it temporarily by editing it, so that you can go to another disk, subdirectory, or document. But the next time you need to specify a document's location, the computer will suggest the original prefix.

To change the prefix, follow the steps for setting a prefix and then edit it.
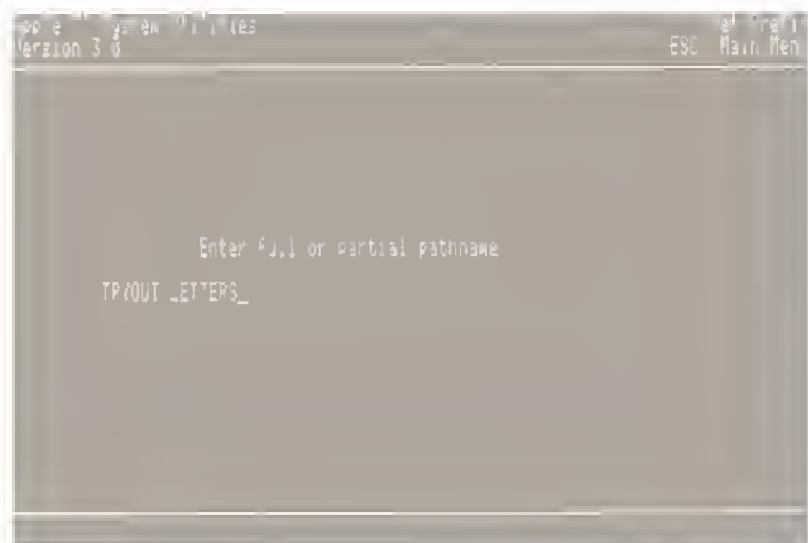
Figure 13-5
The Set Prefix screen

Figure 13-6
Renaming a ProDOS disk

Renaming a ProDOS disk

As you save more and more files on a disk, you may find that the disk's name no longer describes its contents. The Rename Volumes option lets you change the name of a disk without changing its contents. You can do this only with disks formatted with ProDOS.

1. In the Main Menu, choose Rename Volumes and press Return.

2. If you are using only one drive, replace the system disk with the disk whose name you want to change. If you have a second drive, put the disk to be renamed in that drive.

3. Confirm that you will identify the location of the disk by slot and drive; then specify its location.

4. Edit the disk's name. (See Figure 13-7.)

   See "Naming Disks and Files" in Chapter 10 for a list of rules on naming a disk.
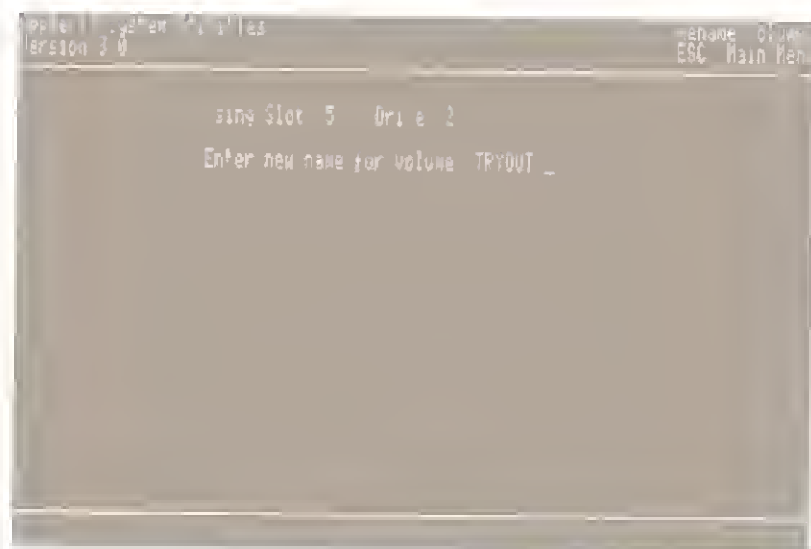
Figure 13-7
The Rename Volumes screen

Chapter 14

Troubleshooting

Making mistakes is part of the learning process. In fact, if you don't make a few mistakes, you're probably not being very adventurous. If you hear a beep and see a message you don't understand, find the message in this alphabetical list and follow the troubleshooting tips.

An attempt to read or write data on a disk was unsuccessful

Make sure a correctly formatted disk is in the drive. With a 5.25-inch drive, close the drive door. Tighten all connections between drives and the computer. To make sure the disk itself is readable, choose Verify a Disk. If you specified a slot and drive, make sure those numbers are correct. (See "About System Utilities" in Chapter 8.)

An error occurred

Perhaps you entered a filename at the end of the pathname. For some operations, that's going too far. The prefix should lead to a volume (the disk) or a subdirectory full of other files—not to a particular file. Press Return, then delete the filename at the end of the pathname.

You may also have entered the volume name or subdirectory name incorrectly. If you have any doubts about the spelling of either name, press Return, then press Esc and choose Catalog a Disk to check.

Beep!

You've tried to do something that the application does not allow. For instance, in typing a pathname, you've tried to use some character other than a letter, number, or period. Or in naming a file, you've tried to use too many characters. The application prevents you from making the mistake and warns you with a beep.

Delete files in the subdirectory?

If you intend to delete every file within the named subdirectory, choose Yes. To preserve the files within that subdirectory, choose No.

Different volume sizes

As a safety precaution, the Duplicate a Disk option does not even begin to format the new disk if it's a different size from the original. (To do so would shrink an 800K disk to 143K, or risk trying to put 800K of files onto a 143K disk, thereby losing or damaging data.) If you want to copy data among disks of different sizes, use the Copy Files option to copy individual files instead of a complete volume.

Disk is full

You've run out of room on the disk. To squeeze any more files onto the disk, you must delete one or more of the files now on the disk. Use Catalog a Disk to find out how much room is left and how much space each file takes up, then use Delete Files to remove as many files as necessary. If you do not want to delete any files, put the new file on another disk.

Disk is write protected

Make sure you have the correct disk in the drive.

Before overriding the write protection on a disk, decide whether you really want to allow changes to be made to these files. (You may have had a good reason to protect them.) To remove protection on a 5.25-inch disk, remove the adhesive write-protect label and reinsert the disk. To remove protection on a 3.5-inch disk, slide the write-protect tab to close the square opening in the corner of the disk.

Duplicate file or subdirectory name

To avoid confusion, the utilities will not let you put two files with the same name on the same disk or subdirectory. (You can put files with the same name into two different subdirectories on the same disk if you wish.) You have three choices in this case: give this file a new name, put it on another disk, or put it into another subdirectory.

Duplicate volume names

Change the name of one disk, using Rename Volumes. Then you can copy the files. (The utilities use the volume names as a way of distinguishing the source disk from the destination disk.)

Error code= xx

Unanticipated error. Write down the error number and consult your authorized Apple dealer.

File is locked, delete it?

You once wanted to protect this document from changes. The warning gives you a chance to preserve it. If you realize you want to preserve the file after all, choose No. If not, choose Yes.

File is locked, rename it?

You once wanted to protect this document from changes. The warning gives you a chance to save its name. If you realize that you want to preserve the name after all, choose No. If not, choose Yes.

File or subdirectory not found

Make sure you have the correct disk in the disk drive.

Use Catalog a Disk to check the spelling of the volume name and any subdirectory or filename.

File X already exists, delete it?

In copying this file, the utilities have found a file with the same name on the destination disk. If you want the copy from your source disk to replace the version on your destination disk, choose Yes. If you don't want to lose the version on your destination disk, choose No.

Incorrect disk format

You've tried to create a subdirectory, set a prefix, or rename a volume with a disk that has not been formatted with ProDOS. If the disk contains valuable data, you should *stop the operation* now.

If you don't mind erasing the contents of the disk, you can format it with ProDOS and then proceed.

Incorrect pathname

Begin with a slash, then type the disk name, another slash, and, if needed, the name of the subdirectory. The first character of the disk name or subdirectory name must be a letter. A ProDOS filename can be no longer than 15 characters.

Make sure that you have not tried to use the Rename a File option to move this file onto another disk. (Use Copy Files for that purpose.) Renaming must leave the file where it is, changing only the name.

Slot and drive numbers...

See "About System Utilities" in Chapter 8.

Volume directory full

The disk may not be full yet, but you have tried to use more than the maximum of 51 filenames per directory. You can copy some files to another disk and then delete their originals here; you might also want to create a few subdirectories and copy some files into them. Either way, you will have fewer names on the volume directory and more room for new files.

Volume not found

Make sure that you typed the disk name correctly and that the disk is securely placed in the drive. If you are using a 5.25-inch disk, be sure to close the drive door. If you think you may have forgotten the disk name, choose List Volumes or Catalog a Disk.

Appendix A

AppleTalk Network Utilities

About network utilities

In addition to the utilities that let you copy, delete, rename, and otherwise manipulate the information on disks, there are also utilities on the system disk for **AppleTalk network** users. These utilities, called the *Namer* and the *Chooser*, let you name the printers you share with others on an AppleTalk network and choose which of those printers to print with.

If you have two LaserWriter® printers or two ImageWriter® printers on your network, it's important to have some way of distinguishing them so you know where to look for your printed document. (If you have only one LaserWriter, you don't really need to name it—it's called *LaserWriter* if you don't name it something else—but for the same reason that people name cars and boats, you might enjoy giving your printer a name.) Naming a printer is something that anyone on the network can do, but it needs to be done only once, by one person.

The Chooser is a program that lets you designate which network printer to use. Once you choose a printer, your choice is recorded on the disk containing the Chooser. You won't need to use the Chooser again unless you want to pick a different printer or unless you are the first person to use a LaserWriter since it was turned on.

❖ *By the way:* To use an ImageWriter as a network printer, you need to install the ImageWriter AppleTalk card in your ImageWriter.

Preliminaries

Before you can use the Namer or the Chooser, your computer must be connected to the AppleTalk network (see Figure A-1) and your computer's Control Panel must be set up for using AppleTalk (see Figure A-2). If you need instructions on using the Control Panel, refer to the *Apple IIGS Owner's Guide*.
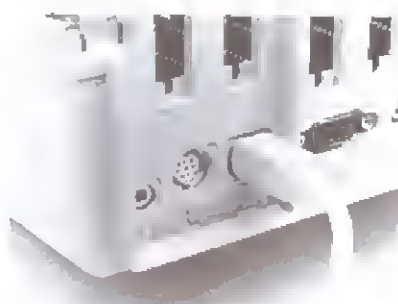
Figure A-1
The AppleTalk cable plugged in

```
┌─────────────────────────────────────────────┐
│ Control Panel                                 │
├─────────────────────────────────────────────┤
│ Slots                                         │
│                                               │
│     Slot  1  Your Card                        │
│   ✓ Slot  2  Modem Port                       │
│   ✓ Slot  3  Built-in Text Display            │
│   ✓ Slot  4  Mouse Port                       │
│   ✓ Slot  5  Smart Port                       │
│   ✓ Slot  6  Disk Port                        │
│     Slot  7  Built-in AppleTalk               │
│                                               │
│     Startup Slot  5                           │
│                                               │
│                                               │
│ Select: ← → ↓ ↑     Cancel  Esc    Save: ↵    │
└─────────────────────────────────────────────┘
```
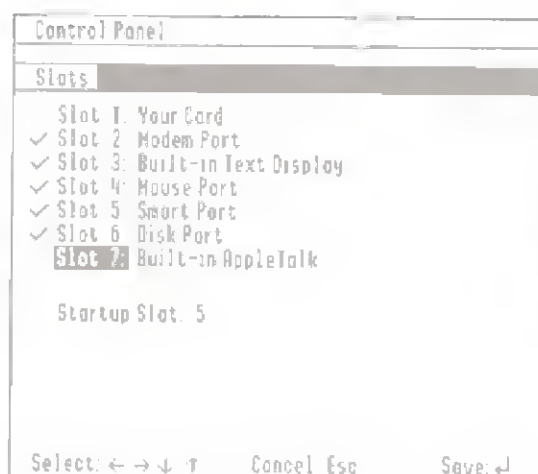
Figure A-2
The Control Panel set up

Once your computer is set up and configured for using AppleTalk, you can name the printers on the network by using the Namer, choose one of them to use for printing by using the Chooser, and print to that printer from your application—provided your application uses a version of ProDOS that supports the AppleTalk network (version 1.2 or a later version) and has been configured to print to a network printer.

You'll find instructions at the end of this appendix on how to prepare AppleWorks for use with a network printer.

Using the Namer

1. Turn on the printer you want to name.

2. Start up the system disk, open the subdirectory called APPLE-TALK, and then open the application called NAMER.11. When you do, you'll see the screen shown in Figure A-3.

3. Choose the type of printer you want to name by clicking it. The cursor becomes an hourglass while the Namer checks the network for all printers of that type and displays a list of printers and their current names in the Names window.

4. Choose the printer you want to name from the list of printers shown on the left side of the Namer screen by clicking the printer's name. The insertion point automatically moves to the new name box.

5. Type a new name or edit the current name.

6. Click the Rename button.

7. Click Quit.

Important	If you change the name of a printer, you should inform everyone on the network; they'll need to use the Chooser to choose the new name before they can print anything.
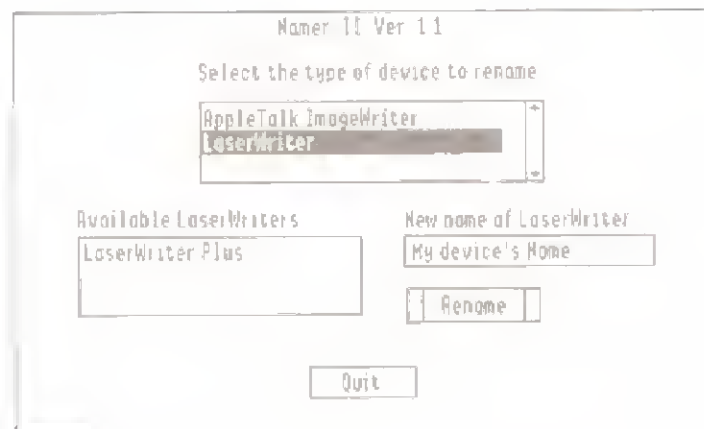
Figure A-3
The Namer

Using the Chooser

1. Start up the system disk, open the subdirectory called APPLE-TALK, and then open the application called CHOOSER.II. When you do, you'll see the screen shown in Figure A-4.

2. Choose the type of printer you want to use by clicking it.

❖ *Choosing a zone:* If your network is subdivided into several AppleTalk zones, choose the zone that your printer belongs to by clicking the zone name.

3. Choose the printer you want to use from the list of printers shown on the right side of the screen by clicking it. Click the printer name or press Return even if the name is already highlighted.

❖ *For Laserwriter users:* If you're printing with a LaserWriter, you'll see a message that says "Checking for presence of ImageWriter emulator." If no one has printed with that printer since it was turned on, you'll also see the message "Downloading ImageWriter emulator." (The ImageWriter emulator is a program that makes it possible to use a LaserWriter with any application designed to print with an ImageWriter.)

4. Click the User Name box and type your name. Some applications use the information in the User Name box to let other people know who is currently using the printer.

5. Choose Quit from the Quick menu.
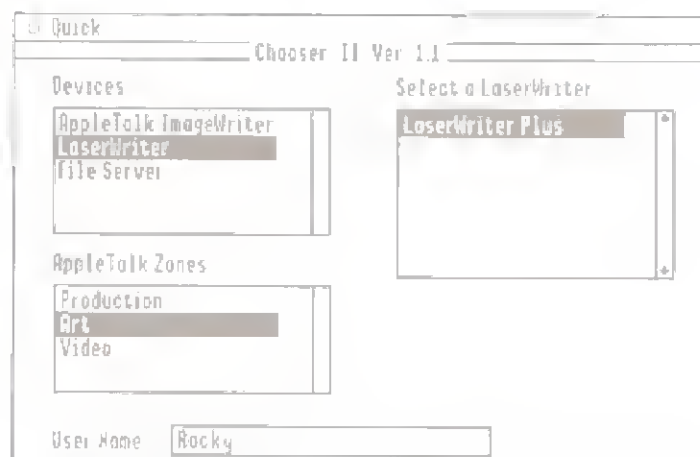
Figure A-4
The Chooser
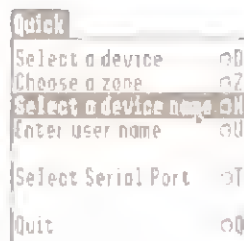
Figure A-5
The Quick menu

❖ *Keyboard shortcuts:* You can also change settings in the Namer and Chooser by using the keyboard. Pressing Tab moves the cursor on to the next box. Pressing one of the arrow keys selects a new item. Pressing Return chooses the selected item.

❖ *More choices:* The Quick menu gives you two more ways to move from one box to another. You can choose the category you want from the menu or use the keystroke equivalent listed in the menu. (See Figure A-5.)

Preparing applications for network printing

The Chooser must be on your startup disk in order for you to use network printers.

If your application disk doesn't have a Chooser, start up the system disk. Then use the Program Launcher to start the program you want to use.

If your application isn't copy protected, you might want to copy your application files to a copy of your system disk so that the Chooser and the application will be on the same disk.

The following instructions explain how to copy an application program like AppleWorks to a copy of the system disk and how to prepare AppleWorks to print with a network printer.

1. Make a copy of the system disk.

2. Delete the SYS.UTILS folder from your copy of the system disk to make room for the AppleWorks files. (This deletes System Utilities, but you shouldn't need the utilities with AppleWorks.)

3. Copy the contents of your AppleWorks program disk to the system disk. When you are asked whether you want to copy over the file called PRODOS, answer No.

Important   There is already a copy of the file called PRODOS on the system disk, and it's probably a more recent version of the file than the version on your AppleWorks disk. You need version 1.2 of the ProDOS operating system (or a later version) to be able to print to a network printer.

4. Specify information about your network printer:

☐ Use the Program Launcher to open the application called APLWORKS.SYSTEM.

☐ Choose Other Activities from the Main Menu.

☐ Select "Specify information about your printer(s)."

☐ Select "Add a printer."

☐ Select "Apple Imagewriter" (even if you'll be printing with a LaserWriter).

Type the name of one of your network printers.

Select Slot 7.

☐ Select "Interface cards."

If any control characters are listed, press Return to select No and then type ^ (Shift-6). If no control characters are listed, simply type ^.

Now that you've copied AppleWorks to the system disk and configured AppleWorks for use with a network printer, you'll never need to go through those steps again. From now on, all you need to do is start up the copy of the system disk that has AppleWorks on it and then start up AppleWorks.

❖ *By the way:* The LaserWriter gives you a choice of fonts. The default is Courier. To change to Times, choose Proportional 1 or 2 in the AppleWorks Option menu. (Proportional 1 gives a condensed version of Times, Proportional 2 a noncondensed version. Experiment to see which version you prefer.)

❖ *Preparing other applications for network printing:* Different applications have different ways of asking for information about your printer. If the application asks for the slot number of your network printer, choose slot 7.

Glossary

active window: The window that is the scene of the next action you perform. The active window appears in front of all other windows on the desktop. To make a window active, click anywhere in the window.

AppleTalk network: A system of interconnected computers that allows a group of users to exchange information and share peripheral devices.

application: A program that puts the resources of the computer to use for some specific purpose, such as word processing.

back up: To make a spare copy of a disk or file, to ensure that you won't lose information if the original is lost or damaged.

backup copy: An extra copy of a disk or file, made as insurance against any disasters that might befall the original.

based: When an application relies on an operating system to send information to disks, receive information from disks, and perform other chores, that application is *based* on the operating system. For instance, AppleWorks is ProDOS-based.

BASIC: A programming language built into the Apple IIGS. The system disk contains extensions of BASIC that let you save and load BASIC programs on disks formatted with the ProDOS operating system.

blank disk: A disk that has not been formatted to receive information and therefore has no files on it.

block: A unit of information 512 bytes (roughly 512 characters) long. A 5.25-inch disk contains 280 blocks. A 3.5-inch disk contains 1600 blocks.

button: The place in a dialog box where you click to designate, confirm, or cancel an action.

byte: A unit of information large enough to represent a single letter, number, punctuation mark, or other character.

Cancel button: One of the buttons in a dialog box. Clicking the Cancel button cancels the command.

card: A circuit board that plugs into one of the computer's expansion slots, allowing the computer to use one or more peripheral devices such as disk drives.

catalog: In the System Utilities, to list all files stored on a disk.

central processing unit (CPU): The "brain" of the computer; the microprocessor that performs the actual computations.

character: A symbol such as a letter, number, or punctuation mark.

check box: The small box associated with an option in a dialog box; when clicked, the check box activates or deactivates the option.

choose: To pick a command from a menu by dragging. Usually, you choose a command after you have selected something for the Finder to act on.

click: To position the pointer on something and then to press and quickly release the mouse button.

clipboard: The holding place for what was last cut or copied. You use the Finder's Show Clipboard command to view the contents of the clipboard.

close: To collapse a window into the icon that represents it. To close a window, you click the window's close box.

close box: The small, white box on the left end of the title bar of an active window. Clicking the close box closes the window.

command: A communication from you to the computer, telling it to perform some immediate action.

copy: To duplicate a file, folder, or disk. The System Utilities and the Finder can make copies for you.

cursor: The blinking marker that indicates where what you type will appear.

default: A preset response to a question or prompt, or the option that is chosen if you don't specify some other option; usually the expected or most common response.

delete: In the System Utilities, to remove a file from a disk, leaving space available for other files. When editing, to erase one or more characters.

desk accessory: A "mini-application" available on the desktop from the Apple menu, regardless of which application you are using.

desktop: The Finder's working environment. The desktop includes the menu bar and the gray area on the screen.

destination: The disk, volume, or folder into which you are copying. The **source** is the disk, volume, folder, or file you want to copy.

device: A physical apparatus for performing a particular task—for instance, a disk drive, a monitor, or a keyboard.

dialog box: A box that appears on the screen to provide information and, in some cases, to request a response from you.

dimmed command: A command that you can't choose under the present circumstances. When you choose a dimmed command, the Finder displays a dialog box telling you how to activate the command. You can turn off this option using Preferences.

dimmed icon: An icon that represents a disk that has been ejected or a file or folder on a disk that has been ejected.

directory: A list of the contents of a subdirectory or folder, or a list of the contents of a disk.

disk: A flat, circular, magnetic surface, serving as a medium for storing information. A **RAM disk** is memory that functions as a cross between random-access memory (RAM) and a disk.

disk directory: A list of the files and folders on a disk. The disk directory does not include files or folders that are nested inside folders.

disk operating system: Software that enables your computer to communicate with its disk drives.

document: A named collection of meaningful data, created by an application program and stored on a disk as a file.

DOS 3.3: One of three operating systems used by the Apple IIGS; **DOS** is an acronym for disk operating system; **3.3** is the version number.

double-click: To position the pointer where you want an action to take place and then to press and release the mouse button twice in quick succession. You double-click an icon to open it; you double-click an icon's name to select it for renaming.

drag: To position the pointer on something, press and hold down the mouse button, move the mouse, and then release the mouse button.

drive: A device that reads and writes information on a disk.

duplicate: In the Finder, to copy a file or folder in the same folder or disk directory as the original. In the System Utilities, to copy the contents of one disk onto another.

Esc: Short for Escape. Pressing the Esc key cancels an operation and returns you to the Main Menu of the System Utilities.

file: A named collection of information stored on a disk.

Finder: A utility used to start up ProDOS-based applications and to copy, move, delete, and otherwise manipulate information stored on disks.

FINDER.DATA: A file stored on a disk that "remembers" the color and position of the icons in a window and the size and location of the window on the desktop when you close the window.

FINDER.ROOT: A file stored on a disk that "remembers" the windows that were open when you last ejected the disk or quit the Finder and opens those windows the next time you place the disk icon on the desktop.

5.25-inch disk: A flexible plastic disk, 5.25 inches in diameter, with a thin, flexible plastic jacket.

floppy disk: A disk made of flexible plastic, as opposed to a hard disk, which is made of rigid material, usually metal.

folder: In the Finder, a place to store related documents, applications, or other folders on the desktop. Compare **subdirectory.**

format: To prepare a disk to store information. You must format a blank disk or a RAM disk before you can save documents or applications on it. Same as **initialize.**

hard disk: A disk made of metal and sealed into a drive or cartridge. A hard disk can store much more information than a 5.25-inch disk or a 3.5-inch disk.

highlight: In the System Utilities, to move the bright bar over an option, indicating that you want to select it. In the Finder, an icon is said to be *highlighted* when it has been selected.

icon: A graphic representation of an object, concept, or message.

initialize: To prepare a disk to store information. You must initialize a blank disk or a RAM disk before you can save documents or applications on it. Same as **format.**

interface card: A circuit board that manages the interface (connection) between the computer and a particular peripheral device, such as a printer, a disk drive, or a modem.

kilobyte (K): Two to the tenth power (1024) bytes (from the Greek root *kilo*, meaning thousand); for example, 256K of memory equals 256 times 1024 bytes, or 262,144 bytes.

list: In the System Utilities, to display the contents of the disk directory on the screen or on paper.

lock: To prevent a file or folder from being renamed, replaced, or removed.

megabyte (MB): Two to the twentieth power (1,048,576) bytes (from the Greek root *mega*, meaning million). One megabyte equals 1024 kilobytes.

memory: A hardware component of the computer; memory holds information temporarily for later retrieval.

memory expansion card: A circuit board that adds extra random-access memory (RAM) to your computer; the card comes with 256K of RAM but can be expanded to 512K, 768K, or 1 megabyte. You can designate all or part of the memory on a memory expansion card as a **RAM disk.**

menu: A list of choices presented by an application, from which you can select a command.

menu bar: The horizontal strip at the top of the Finder desktop that contains menu titles.

move: In the Finder, to transfer a file to another folder or disk.

open: To retrieve an existing file from a disk, bringing the information back into the computer, usually for display on the screen, where you can read it and revise it. In the Finder, to expand an icon into a window or to launch an application.

operating system: Software that organizes the actions of the parts of the computer and communicates with peripheral devices such as disk drives.

partial pathname: In the System Utilities, the portion of the pathname following the prefix. The prefix provides the volume name (and subdirectory name if needed); you provide the rest of the pathname leading to a particular file.

Pascal: An operating system and a programming language. The System Utilities program works with the Pascal operating system, version 1.3.

pathname: The full name by which an operating system locates and identifies a file. The pathname specifies the path from the disk, through any subdirectories or folders, to the file itself. Each part of the pathname is preceded by a slash.

peripheral device: Any physical apparatus for performing a particular task outside the main circuit board of the computer; thought of as at the *periphery* of the computer. Examples: a disk drive, a monitor, a printer.

pointer: In the Finder, a small visual device on the screen, most often an arrow pointing up and to the left, that tracks the movement of the mouse.

prefix: In the System Utilities, a stored pathname that is placed in front of any subdirectory name or filename you provide.

ProDOS: An acronym for **Professional Disk Operating System.** An Apple II operating system designed to support subdirectories and large-capacity disks.

program: A set of instructions conforming to the rules and conventions of a particular programming language, telling the computer to perform a series of actions designed to accomplish a task such as word processing. A program relies on the operating system to move data back and forth between the computer and disks.

proportional scroll box: The white box in the scroll bar. In the Finder, the position of the scroll box in the scroll bar indicates which part of the directory is displayed in the window. Dragging the proportional scroll box changes the portion of the directory that's displayed.

RAM: An acronym for random-access memory. Computer memory that can be read from or written to in any order; the content of individual locations within RAM can be referred to in a nonsequential or random order. Your application program and its data are stored in RAM while you work. When you turn off the power, all information is erased from RAM. That's why you should save your documents regularly to a disk, a storage medium that preserves your information even after you turn off the power.

RAM disk: A cross between a disk and random-access memory. Like a disk, it must be formatted with a particular disk operating system to store data. Unlike a disk, it acts like the random-access memory inside the computer, so that any data or program you put on the RAM disk can be read and used almost immediately, without making you wait while data comes in from a disk in a disk drive. If you have a memory expansion card connected to your Apple IIGS, you can designate a portion of the memory on the card to be used as a RAM disk.

read: To transfer information into the computer's memory from a disk. You can use the System Utilities to verify that a disk is readable.

rename: To give a new name to a file, folder, or disk.

save: To preserve a document by storing it on a disk.

scroll: In the Finder, to move a directory in its window so that you can see a different portion of the directory.

scroll arrow: An arrow on either end of a scroll bar. In the Finder, clicking a scroll arrow moves the directory one line. Positioning the pointer on a scroll arrow and holding the mouse button down scrolls the directory continuously.

scroll bar: In the Finder, the long bar at the bottom or on the right side of an active window that lets you change the portion of the directory visible in the window.

scroll box: See **proportional scroll box.**

select: To designate where the next action will take place. To select an icon, you click it; to select text or a group of icons, you drag across it.

Shift-click: A technique for selecting and deselecting icons. You Shift-click by holding down the Shift key while you click the icon you want to select or deselect.

size box: A box in the bottom-right corner of a window that lets you change the size of the window.

slot: One of the narrow sockets inside the Apple IIGS that let you connect interface cards for attaching printers and other devices to the computer.

smart block copy: In the Finder, a disk-copying procedure in which only those blocks that contain information are copied.

source: The disk, volume, folder, or file that you want to copy. The **destination** disk, volume, or folder contains the copy.

start: To launch an application program. Note that some application programs come on two disks, a startup disk and a program disk; use the startup disk first.

startup drive: The disk drive from which you started your application.

subdirectory: In the System Utilities, a file you create to serve as a place to store related documents; it has its own list of these documents, a directory within the disk directory.

system file: A file that starts an application. When you want to start a ProDOS application after quitting the System Utilities, you provide the pathname leading to the application's system file. It's the one whose name ends in .SYSTEM.

title bar: The horizontal bar at the top of a window that shows the name of the disk or folder that the window represents and lets you move the window.

Trash: In the Finder, an icon that represents the place where you discard files and folders when you no longer need them.

unlock: To remove the restriction on a file or folder so that it can once again be renamed, replaced, or removed. Compare **lock.**

utilities: Useful programs with which you can copy, delete, format, rename, and otherwise manipulate files and disks. The System Utilities and the Finder are examples of utilities.

verify: To make sure that a disk can be read.

volume: A general term referring to an area in which you can store data. If you are using 3.5-inch disks or 5.25-inch disks, a volume is a formatted disk. If you are using a hard disk, its manufacturer may provide software to divide its storage area into several smaller areas, each known as a *volume.*

volume directory: With 3.5-inch disks and 5.25-inch disks, the main directory of a disk, containing the names, sizes, types, and locations of files on the disk. Those files may be documents, application programs, or subdirectories.

volume name: The name of a formatted disk.

window: The area on the Finder desktop that displays information. You view a directory through a window.

write: To transfer data from the computer to some destination outside the computer, such as a disk or a piece of paper in your printer.

write-enable notch: The cutout on the side of the jacket of a 5.25-inch disk. When uncovered, the notch allows the disk drive to write information onto the disk.

write protect: To protect the information on a disk from being changed or written over. You protect a 5.25-inch disk by covering the write-enable notch (the cutout on one edge of the disk jacket) with an adhesive write-protect label, which prevents the disk drive from writing new information onto the disk. You protect a 3.5-inch disk by sliding the write-protect tab to uncover the square opening in the corner of the disk.

zoom box: The small box on the right end of a window's title bar. Clicking the zoom box expands the window to its maximum size. Clicking it again returns the window to its original size.

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Tell Apple About Your .... Apple IIgs System Disk User's Guide

Please contact your authorized Apple dealer when you have questions about your Apple products. Dealers are trained by Apple Computer and are given the resources to handle service and support for all Apple products. If you need the name of an authorized Apple dealer in your area, call toll-free: 800-538-9696.

Would you like to tell Apple what you think about this product? After you have had an opportunity to use this product, we would like to hear from you. You can help us to improve our products by responding to the questionnaire below and marking the appropriate boxes on the card at the right with a #2 lead pencil. If you have more than one response to a question, mark all the boxes that apply. Please detach the card and mail it to Apple. Include additional pages of comments if you wish.

1. How much experience have you had using computers? (1=none   6=extensive)

2. How many disk drives are connected to your computer? (1=one 3.5-inch drive, 2=more than one 3.5-inch drive, 3=one 5.25-inch drive, 4=more than one 5.25-inch drive, 5=hard disk)

3. Is your computer connected to an AppleTalk network? (1=no, 2=yes)

4. How would you rate the *Apple IIgs System Disk User's Guide* overall? (1=poor,   6=excellent)

5. How much of the guide have you read? (1=entire manual, 2=specific chapters, 3=reference only)

6. How easy was the guide to read and understand? (1=difficult . . . 6=very easy)

7. How would you rate the organization of the material in the guide? (1=poor . . . 6=excellent)

8. How easy was it to find the information you needed? (1=difficult . . . 6=very easy)

9. What did you like best about the guide?

10. What did you like least about the guide?

11. Please describe any errors or inconsistencies you may have found in the guide. (Include page numbers, if possible)

12. What suggestions do you have for improving the *Apple IIgs System Disk User's Guide*?

Please Do Not Mark Above This Line